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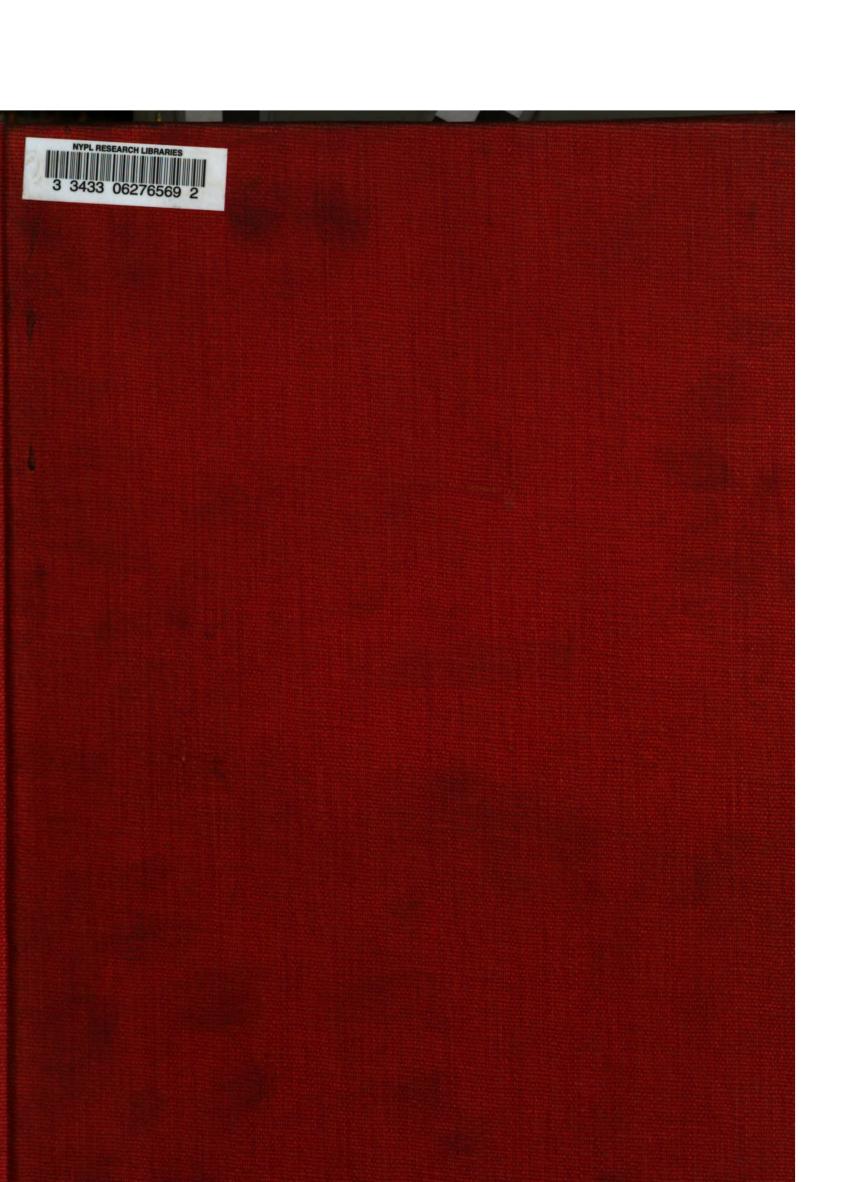
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Motoration

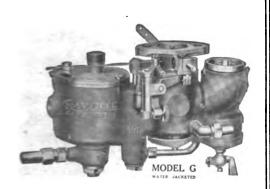




Volume LX Number 1 PUBLISHED WEEKLY AT 239 WEST 39th STREET NEW YORK, JULY 2, 1919

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Fifteen cents a copy Three dollars a year



Rayfield Results are obtained by many years of experience, not by chance. Motorists love the feel of quick starting and easy flexibility given by perfect carburction.

Rayfield Carburetors are guaranteed to give this satisfaction. Wherever maximum efficiency is desired Rayfields are always specified.

Our dealers are authorized to essure their customers of the performance as well as the mechanical perfection of Rayfield carburetors and in this guarantee we back them up.

Over a thousand service stations have found that the Rayfield sign brings them constantly increasing business with larger profits.

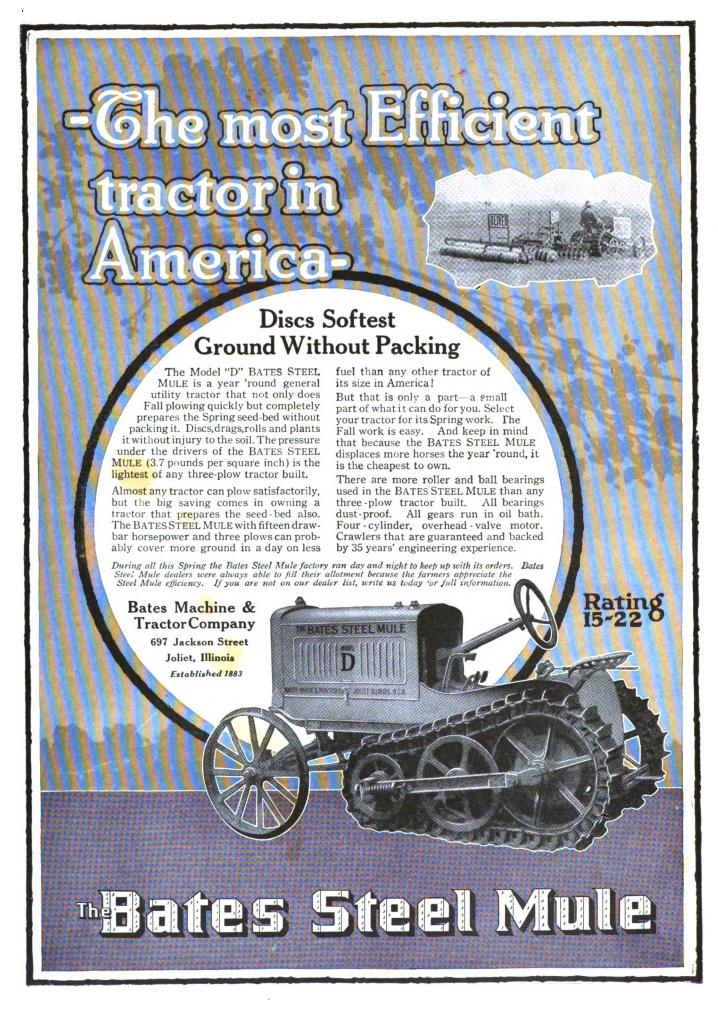
Specified for Efficiency

Not Bought on Price

BENEKE & KROPF Mr . CO.

(Successors to Findeisen & Kropf Ling. Co.)
Twenty-first and Rockwell Streets, Chicago, Illinois





230 West 39th Rt., New York City. 'Phone Bryant 8760 PUBLISHED EVERY WEDNESDAY BY

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Subscriptions of The Horseless Age transferred to the beaription list of Motor World in the merging of the publications will be completed in full by the bekly issues of Motor World to the dates of expiration own on the records of The Horseless Age.

costinge stamps will be accepted in payment for subscriptions. when. Drafts and Money Orders should be made payable to rom WORLD.

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"NORMA" PRECISION BALL BEARINGS



The "factor of safety" of a car, truck, tractor or power boat is no higher than the factor of safety of the weakest part entering into its construction. Which indicates the necessity for a fine balance of quality throughout, and emphasizes the fact that there is no "minor part" in an automotive unit.

The proved service capacity of "NORMA" equipped magnetos and lighting generators—their high factor of safety to which the "NORMA" factor of safety contributes bearing dependability-have made them to be the accepted standards with builders who place serviceability before all else.

Be Sure—See That Your Electrical Apparatus "NORMA" Equipped.



THE NORMA COMPANY OF AMERICA

ITPO BROADWAY

NEW YORK

Ball, Roller, Thrust and Combination Bearings



When writing advertisers please mention Motor World-it identifies you

BUY COOPER, Pateins

W.J HEMPY, VICE PRE

R.L.HEDGES, Sec

W.E. MANNING, TREAS

Hempy-CooperManufacturing Co.

Kansas, Gity, Mo. U.S.A.

FIRESTONE BUILDING

CRANK SHAFT BOR ING MACHINES BABBITTING JIGS PATENT WRENCHES



CYLINDER SORING MACHINES TWO WAY LADLES THREE WAY TORCHES CONNECTING ROD SABBITTING JIGS

Modern Shop Equipment
Exclusively for
FORDS - FORDSON TRACTORS

June 23, 1919

Motor World, 251 W. 39th St., New York City, N.Y.

Attention lir. Chas. B. Shanks, ligr.

Gentlemen:

The results we have received from the advertising placed in Motor World have really been splendid and we have instructed the Firmey Advertising Co. to enlarge our space and insert it oftener.

The slop equipment we are building of course is confined to rather a small field. No one but Ford Agents and those shops catering to Ford repairs have any use for our machines. Nevertheless, we have been operating our plant night and day to keep up with orders.

We are shipping our machines to different foreign countries, also Canada, and all over the U.S. and we attribute a large part of our successful beginning of the Hempy-Cooper life. Co.'s business to advertising placed in Motor World.

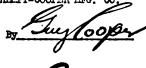
Yours truly.

RECEIVED

JUN 26 1915

GC.R

HELPY-COOPER LFG. 00.





When writing advertisers please mention Motor World—it identifies you oge



ORDERS for the SELDEN SPECIAL Received from Hundreds of Manufacturers, Farmers, Retail Merchants, etc., Express the Judgment of Buyers Well Qualified to Judge a Motor Truck

When we presented the SELDEN SPECIAL Model at \$2185, a month ago, as the truck to meet the present-day need for HIGH QUALITY CONSTRUCTION at MODERATE COST, we did so with the firm belief that this remarkable achievement in motor truck manufacture would meet with widespread acceptance.

To-day we are gratified to have our judgment substantiated by hundreds of orders for the SELDEN SPECIAL which have come to us from manufacturers, farmers, retail merchants, etc., in all sections of the country.

Widely different kinds of industry are represented in the orders which we have received—which is an indication of the adaptability of the SELDEN SPECIAL to every conceivable kind of a hauling problem requiring a truck of 1½ tons capacity.

Present conditions indicate that sales of the SELDEN SPECIAL will be limited only by the number of trucks which we can build.

The phenomenal and spontaneous demand for this model has produced a flood of calls from our distributors for increased allotments, but by further increasing our manufacturing facilities, we expect to be able to fill all orders promptly.

The Selden Line of IN-BUILT QUALITY Motor Trucks comprises models of 1, 1½, 2, 3½ and 5 Ton capacity—all WORM Drive.

Ask us to send you Specifications of the SELDEN SPECIAL—the truck that meets the needs of to-day for HIGH QUALITY CONSTRUCTION at MODERATE COST.

We shall be glad to hear from DEALERS desirous of handling SELDEN TRUCKS in any territory where they are not at present being sold.

SELDEN TRUCK SALES COMPANY, Rochester, N.Y., U.S.A.

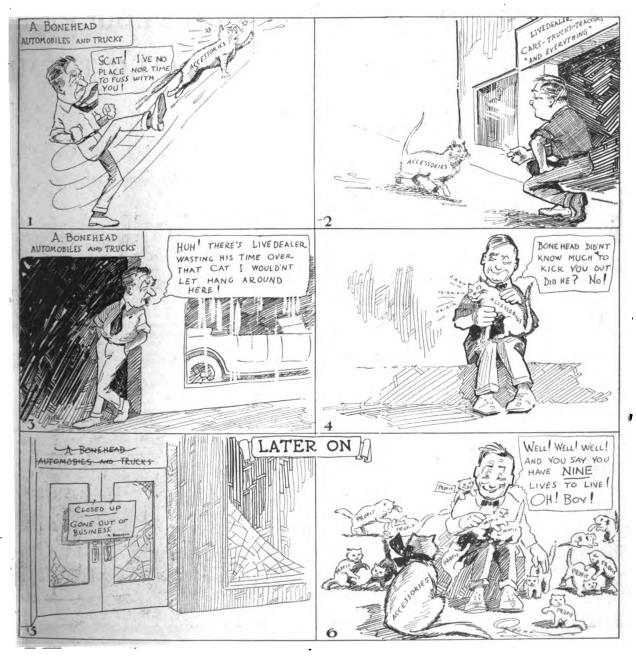
Selden Motor Trucks

Vol. LX

New York, U. S. A., Wednesday, July 2, 1919

No. 1

Feed the Kitty!

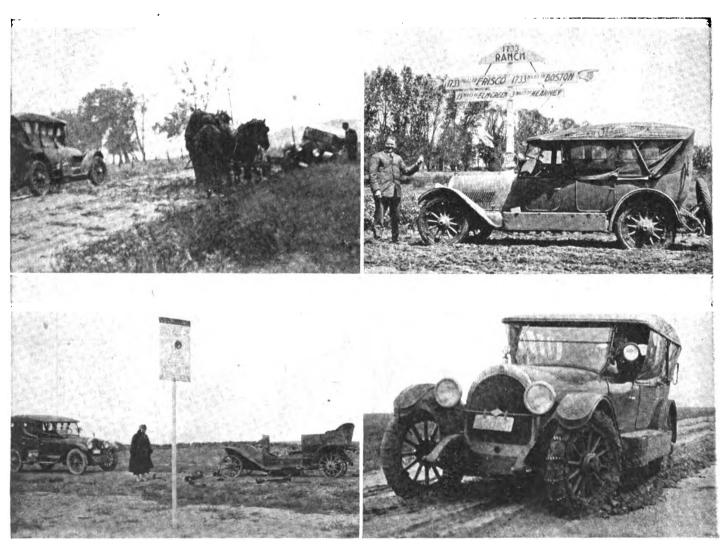


The pictures on this page were taken by J. W. Leavitt, of J. W. Leavitt & Co., San Francisco, while he was on a trip by car from Lansing, Mich., to the Coast, accompanied by Mrs. Leavitt. Each picture shows what is holding back the prosperity of vast areas. How about YOUR home section?

GOOD ROADS

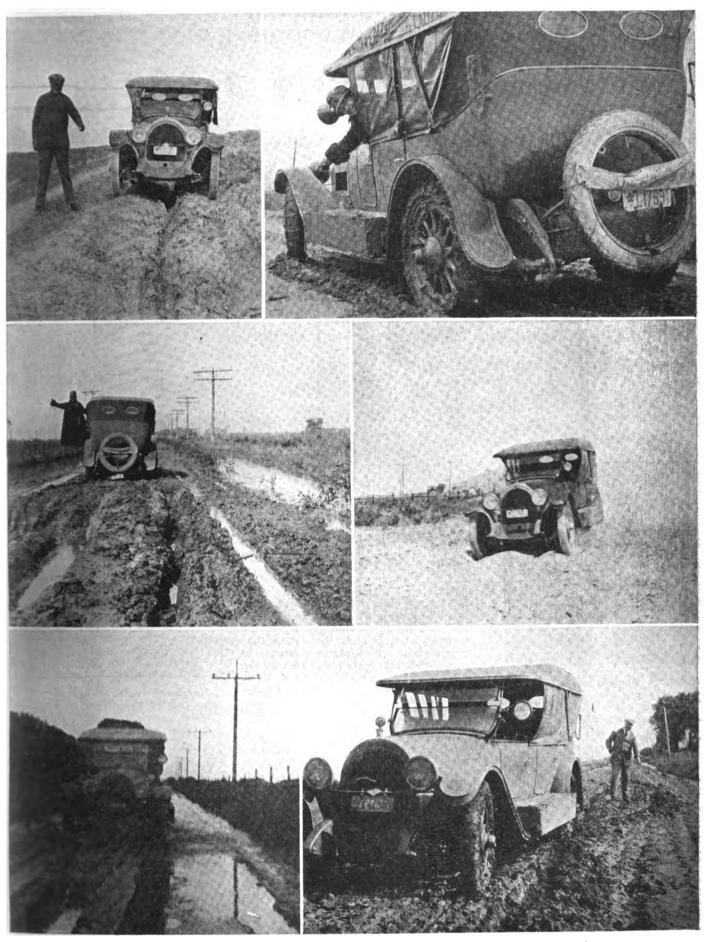
MEAN SALES OF CARS AND TRUCKS

Are There Any Roads Like These in Your Vicinity? WHAT ARE YOU DOING TO BETTER THEM?



Upper—A Fiat in a ditch in Nebraska Lower—An abandoned car on a Wyoming desert

Upper—In Nebraska, half way across the country Lower—More gumbo in Nebraska. Tough going



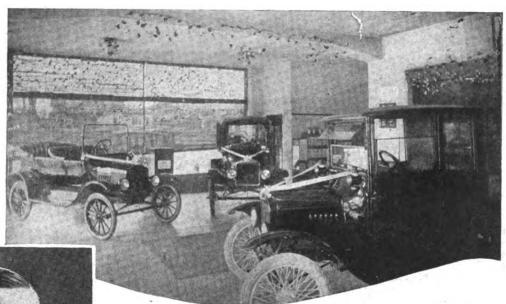
Upper—Hard, dry ruts in Wyoming Center—The Lincoln Way in Nebraska Lower—Lincoln Way near Grand Island

Upper—More western mud
Center—Mud or dust? Take your choice
Lower—Can prosperity roll over such a road?

Listen to This:

POPULATION 6,000—

1—Sold \$10,000 worth of goods in 3 days 2—Entertained 1400 visitors in 1 day 3—Registered 800 prospects



Harry B. Dunlap, the 37-year-old bunch of pep and ginger who is making a place for himself at Ames, Ia., selling "Honor, Service and Fords"

OT alone in the big towns is it possible to stage a motor show which will draw a big crowd and be made to pay the exhibitor a return in business done which will be out of all proportion to the cost of the event.

This can be done in small towns as well. H. B. Dunlap, of the Dunlap Motor Co., Ames, Ia., Ford and Fordson dealer, has proved it. He held his first annual motor show recently, entertained over 1400 visitors on the last day, registered over 800 people who announced themselves as interested in automotive equipment of some kind and sold more than \$10,000 in goods during the 3 days.

In the first place Dunlap believes in printer's ink. He uses it lavishly. He's the best friend the advertising solicitors

A view of Dunlap's showroom, showing the large front display windows

and the news reporters on the local newspapers have.

Not only does he carry regularly a large and attractively displayed advertisement in all of the papers in his territory, but he has the notion that whenever he sells a car or a tractor to a man that that's news, and he tells the newspaper men about it. As a result Bill Higgins over in the Deep Creek district gets a little personal mention and the community as a whole is informed that Dunlap has sold another car.

Another thing Dunlap does. He cultivates cordial relations with retail merchants in other lines. He tells them they all have the same object in view. Therefore, anything which will attract a crowd to Ames benefits them all alike. Then why not get together and boost whenever any one of them tries to pull something?

Sure. That makes a hit with them. So, when Dunlap decided upon his motor show, all the other merchants got busy to help the thing along. Double page spreads in the local newspapers, in which merchants of all kinds hooked up with Dunlap, helped to spread the glad tidings. This Three Guardsmen attitude of "one for all and all for one" is a great stunt and in this instance contributed in no small degree to the success of Dunlap's show.

Nº 729 Dunlap's Ford Show Ames, Iowa, March 6, 7, 8, 1919

Name
Do you own a car?
Do you own a Tractor?', What make
Do you own a Truck':
A Prize given to the person holding the lucky number each evening

Numbered registration card used by Dunlap to gather information about his visitors and to serve as a basis for the prize drawing held each night of the show

The show was a combination of automotive show, automobiles, motor trucks and tractors all being shown; tractor school, which drew 150 farmers the first day and 300 the second, and a community social function on the last night, attracting over 1400 visitors, who looked at the display, sang and danced and had a good time generally.

The show was heralded to the entire community first by posting cards announcing it in scores of vantage points throughout Dunlap's territory. Then the campaign of display advertising, not alone in the local papers but in those of nearby towns, began. Interest was kept on the increase by daily repetitions of the ads and by good press agent dope in

the reading columns of the newspapers.

In the meanwhile Dunlap went down to Des Moines where he bought enough of the decorations which had been used in the Des Moines Automobile Show to decorate his own place of business attractively, and where he made arrangements also for men to come to Ames to talk to the farmers at his tractor school. Then he sat down to wait for the crowds.

They came. During the three days the show was on a large percentage of the population in that vicinity visited the show at least once.

One of the most successful of the show features was the tractor school. Notwithstanding the fact that the country roads were almost impassable 150 farmers came the first day and twice as many the second day. This is indicative of the interest farmers in that vicinity are taking in the possibilities of the tractor.

A tractor which had been sold the previous year and which in the meantime had seen hard service was brought in from the farm and completely taken to pieces in the presence of the school. Every piece of the machine was explained and its purpose indicated.

The second day of the school was devoted largely to talks by the specialists whom Dunlap had engaged for the occasion. The net result, from a business point of view, was the selling of three complete tractor outfits to farmers who attended.

Everybody who came to the show was asked to register, a numbered blank being provided for that purpose. To distinguish those who had registered from those who had not a paper ribbon was used as a badge. Every evening a prize was given away, the winning number being drawn from the day's registrants.

Taking it from any angle the event was a huge success and most definitely gave Dunlap a place on the map. As a matter of fact, Dunlap has been in Ames only since last October, buying the business at that time. During the four months of his control of the Ames busimess he has increased the business nearly 75 per cent.

WORLZ OTHA SA HUNG IS BIG ATTRACTION **DUNLAP MOTOR COMPANY** END OF THE WEEK RST ANNUAL AUTO SHOW



the people of our territory that we are enabled to bring to Ames for your inspection every solitary article that enters into the manufacture of Ford Cars and Fordson Tractors on

T gives us pleasure to announce to ...

Thursday, Friday Saturday March 6, 7 and 8

and at which time we will have representatives present from accessories tires oils and various other companies enabling you to gain first-hand knowledge of all that enters into an automobile or tractor. Demonstrations will be given at all hours during the entire three days. The comfort of the Ford will be shown and the service of the tractor demonstrated.





JUST RECEIVED Car Load of Touring Cars for the Show

LADIES' DAY

Saturday, March 8th

A PRIZE GIVEN EACH DAY

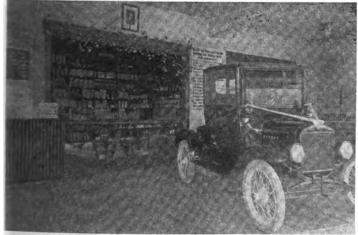


For Better Farming Farm with a Fordson



DUNLAP MOTOR CO.

Sample of Dunlap advertising—Something like this runs regularly in the Ames papers



Dunlap's sales room decorated for his First Annual Show and showing the convenient arrangement of the accessory department



A view in the garage showing the truck on which Dunlap hauls the Fordson tractor around

BUILDING TRUCK SALES

Through Service

How the Stability Program of Service
"Every Hour in Twenty-Four"
Makes It Easier to Sell

SOME STABILITY HIGH SPOTS

- 1—Personal Attention to Detail.
- 2-All Mail Carefully Timed.
- 3-Strategical Location of Employees' Homes.
- 4—Liberal Use of Human Interest Advertising.

By K. H. Lansing

REAL SERVICE every hour in the twenty-four is the aim of the Stability Motors Co., of Philadelphia, distributer of Atterbury trucks and Fruehauf trailers. That such service is being given to owners is due to the personal attention to details shown by the Stability Motors Co.'s president, E. J. Berlet.

Berlet thinks along original lines, is not timid about taking a chance with a new idea and is getting results. He has developed several new things in the way of service, largely because he has studied human nature. For instance, Berlet has a leaning toward advertising and makes use of many points in the processes of attracting attention and awakening desire to possess. Here's an example:

Long experience as a merchant in other lines proved to him that advertising matter arriving at a business man's desk early in the morning or late in the afternoon is not accorded the attention it sometimes merits. There are letters of a pressing nature to be read and dictated at such times, and often advertising matter, whether initial or "follow up," is, at these hours, either impatiently glanced over or swept into the wastebasket.

So all Stability Motors Co. advertising matter, whether letters or folders, is mailed when intended for local owners' or prospects' desks at 8 in the morning, so it will be delivered at noon—a more auspicious time for its perusal. The mailing of similar matter for outside territory likewise is timed.

This nicety of calculation, this turning to account a knowledge of action and reaction is carried through the entire Stability service program.

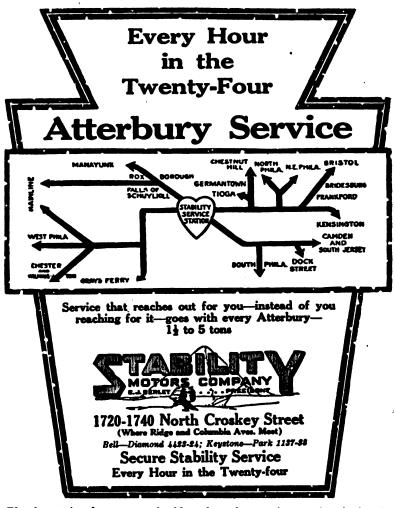
When the fuel administration last summer made it known that motor car owners and users, garages and service stations could help materially in the saving of gasoline and oil, most of the service stations connected with motor car distributers and agents in Philadelphia agreed to remain virtually closed on Sundays and holidays except for emergency work of a necessary nature and

to adhere to an early closing plan on week days.

It was about that time that Mr. Berlet, in his efforts to have Stability service stand out as an actual assistance to owners and not a mere trade phrase, conceived the idea of making it possible for owners to get such emergency help whenever they might need it and wherever in his territory of Eastern Pennsylvania, Southern New Jersey and Delaware they might be. As his arrangements for distribution and service were in a growing and elastic condition, this made it especially propitious and desirable to do something to emphasize them.

Indicative of the painstaking attention to detail in laying his plans to improve the service, Mr. Berlet personally arranged for the rental of houses for his service employees' group within a zone making it possible for the quick assemblage of mechanics and repairmen at the garage and service station, where are also the main offices, at 1720-1740 North Croskey Street, in Philadelphia.

By special arrangement with the telephone company he had a wire placed at the bedside of his superintendent of



The heart in the center signifies that the service station is in the heart of the Stability Motors Co. district—Eastern Pennsylvania, Southern New Jersey and Delaware. The arrows leading to the various points indicate their accessibility from the station, and they point outwardly, instead of the usual way, inwardly, because the print of the company, wishes to stress the service idea of reaching out from the station to Atterbury owners

service, so that a call for the closed Stability Motors Co. service station would be put, without delay, on the superintendent's wire at any time of the day or night, Sundays or holidays, and the force assembled if necessary.

This is service "Every Hour in the

Twenty-four."

This idea, born in the time of war necessity, has been extended to the Stability service program as a regular and permanent part of it, and this is why all the Stability advertisements to-day carry somewhere in them that slogan: "Every Hour in the Twenty-four."

And all this painstaking care to serve in emergency. But it has proved worth while—and it is being appreciated.

Fourteen service men, all experts, work at the main station during the daytime and one man, an adept at motor mechanics, is on duty at night. The station's floor space is approximately 25,000 sq. ft. and the repairshop has every modern facility for effective and rapid repairing. For road repairs there is a one and a half-ton service truck, carrying repair equipment, towing arrangements and parts to be rushed out on notification.

Every time a Stability Motors Co. advertisement is inserted in a publication, or mailed to a customer or prospect, the service department gets its share of publicity. The superintendent never is obliged to argue and "fight" for space, like the department manager in a department store, for instance. He finds he is more than met half-way by the president of the company.

Sometimes special service publicity goes out, all on its own accord. For instance, on Feb. 3 a certain circular letter—but not so "circular" it wasn't addressed by name to every Atterbury owner in the territory and sent out signed by the Stability's general superintendent, W. B. Oliver—was devoted to the service topic in a most original way, with no suggestion of mercenary motive, for, indeed, there was none. It has proved productive, nevertheless, just of its "goodwill" note and originality. It was read, which, of course, is the goal of publicity.

Owners surely appreciate the offer of the company to save them money by looking over their trucks while there is yet time to prevent serious trouble or the deterioration natural to any machine from neglect or lack of knowledge of its mechanism. But it is a point of the Stability service to instruct in all these things. Lack of proper care, however, may follow in spite of instruction and it is best to be on the safe side and advise against neglect too long practised.

"Institutional," or business-building advertising and general publicity without the expectation or intention of bringing direct and immediate return is done to a considerable extent by the company, with the underlying idea of showing how the company actually can serve the best interests of owners. But sometimes there is another sort of "institutional" advertising from this house, which is helpful to the trade and is actuated by no thought of gain.

MOTOR TRUCKS



TRAILERS

PHILADELPHIA, PA.

MINISTER MI

February 3, 1919.

Dear Sir:-

The Chinese have a rule of health that we could well use to advantage. They say, "See a Doctor when you are well to keep well! and NOT see him when sick to get well!"

A Motor Truck is subject to deterioration and depreciation in the same way as the human body is subject to decay and decomposition.

If you wait until that depreciation has reached a point necessitating immediate and stringent, as well as wholesale repairs, you hurt the truck and incidentally your pocketbook.

We are willing to make a rigid and thorough inspection of your truck, no matter what make, free of charge.

Probably this is the time for action!

Right Now!

Try this method.

With cordial greetings, we are

Yours very truly,

STABILITY MOTORS COMPANY.

W. B.O lucks
General Manager

P. S. - Secure Stabililty Service.



A service letter gotten up in an original way—it pulled

Witness a newspaper display with the characteristic keystone border, announcing to motor truck owners—not simply owners of Atterburys—of a mass meeting, or conference of truck owners to decide on methods to modify proposed drastic laws pending at Harrisburg. Thousands of printed notices also were sent out by Mr. Berlet to the trade and

owners, the Stability Motors Co. standing the entire expense.

Twenty-five service stations are being established by the company in the localities of as many sub-dealers, with whom there will be close co-operation from the factory and from the Stability Motors Co. offices and service station in Philadelphia.

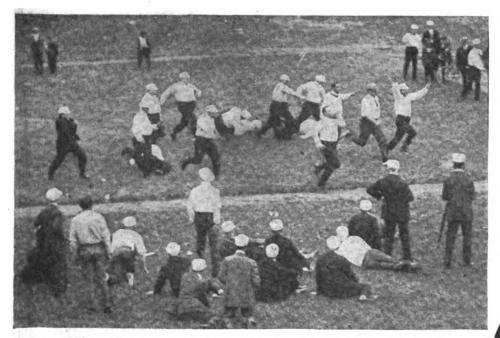
Trolley Strike Booms Toronto Sales

TORONTO, ONT., June 28—The street car strike made Toronto one of the world's most motorized cities. Before the walkout the Ontario metropolis had something like 35,000 cars. As the strike progressed motor vehicles came in from the surrounding territory for transportion work. Mayor Church lifted all restrictions. Jitneys were reported coming here from as far away as London.

From the motor standpoint the most interesting aspect of the situation was that business, commerce and industry were carried on much as usual, thanks to the improvised motor transport, albeit to make this possible cars of ancient vintage were pressed into service and heavy duty motor trucks where any seating accommodation was provided seldom afford anything more pretentious than boxes.

Many of the large employers of labor put on scheduled motor services, issuing their employees tickets and placarding their trucks according to routes.

Unfortunately for the trade, it was oversold before the strike broke, many of the distributers and dealers being without any but demonstration cars. In many cases would-be purchasers offered premiums for immediate delivery.



Here you have the halfway mark in the fat men's race—200 pounds and over. A good percentage of the 200-and-overs tipped over and never finished at all. It was a good race



Here's Charley Tate, who tried to master the ceremonies



Brooklyn Trade Had An Outing

It was at Karatsonyi's at Glenwood, Long Island

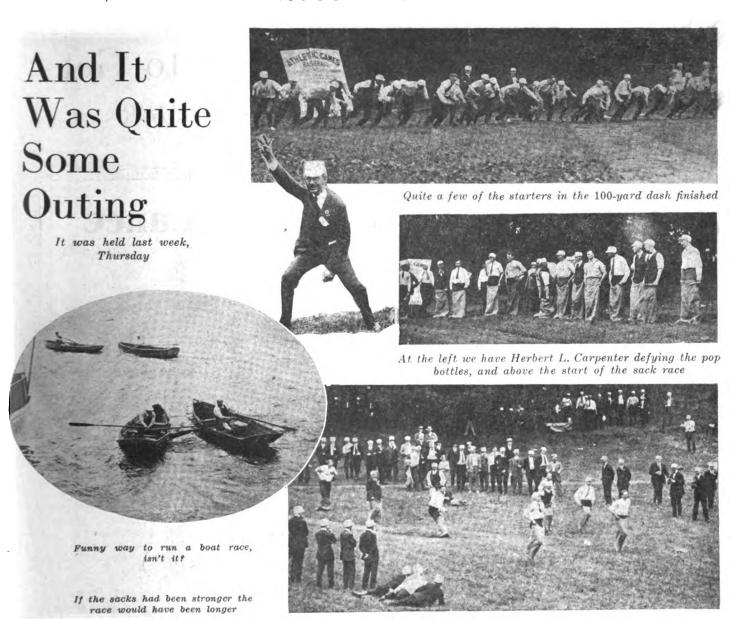


This scene above was duplicated many times. Score? Why fuss about details

The question of capital and labor is settled. The employers dragged the employees all over the lot



And then the whole gang went out on the end of a dock and when they were corraled where they fish dinner that are wafted

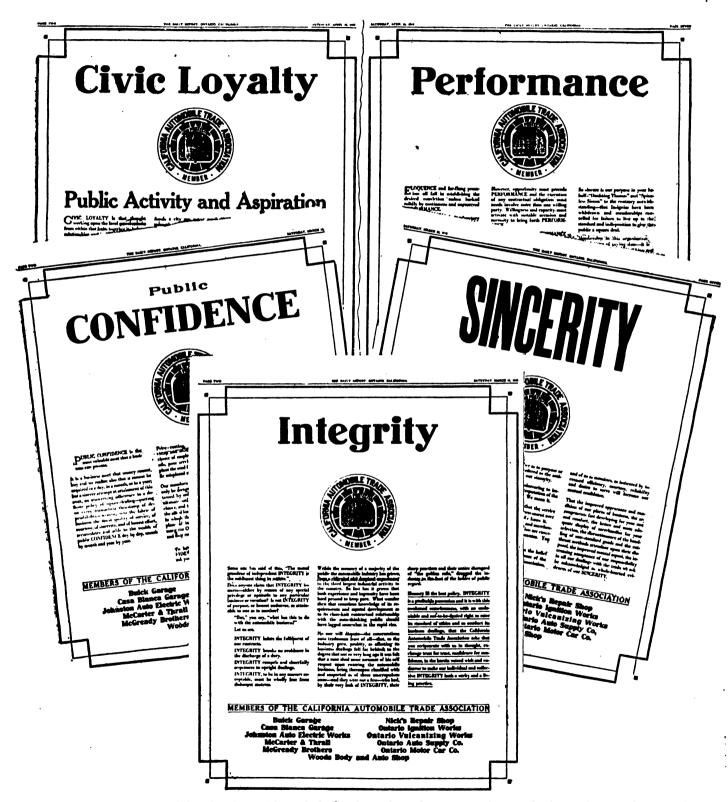




couldn't get away they had their picture taken. The hungry expression is due to whiffs from the town from Karatsonyi's kitchen

Advertising to the Public to Get

THE GOOD-WILL OF THE CUSTOMER



IN an effort to establish in the public mind the fact that the automotive trade is made up of men of business standing and integrity, the members of the California Automobile Trade Association in Ontario ran a series of newspaper advertisements, of which five are shown on this page. It is enterprise worthy of emulation in any city.



NORMALIAN DE PROPERTADO DE LA PROPERTADO DEL PROPERTADO DE LA PROPERTADO DE LA PROPERTADO DEL PROPERTADO DEL PROPERTADO DE LA PROPERTADO DEL PROPERTADO DEL PROPERTADO DE LA PROPERTADO DEL PROPERTADO

A UTOMOTIVE equipment?" questioned Henry Bennett, the Redman dealer.

"Sure," said Reilly.

"Oh, you mean accessories," said Henry.

"If you read the papers you wouldn't have to wonder," was Reilly's retort.

"I don't have time-"

"Bushwah!" Reilly declared.
"You never have time for anything except telling what you don't have time for. Now, what I want to ask is why you don't develop that little old equipment department and help drag down your overhead? You're all the time yelling about losing money because you have nothing to sell."

"Darn it, Reilly!" blurted Henry. "I tried it—and it CAN'T BE DONE. No car dealer of any size can sell accessories. I tried it. To begin with, it's a picayune business. It's small time stuff, and in the second place the more junk like that you have around the place the more you have to give away to the people who buy your cars!"

"Whaddyuhmean, give away?"
"Why, every time a man buys a

car he sees some accessory, and he begins to dicker for the accessory. He wants you to throw it in with the car, and you have so darned much trouble making the sale with that junk around that I gave away most of the stock I had. The rest of it I hid and don't trot it out unless a man comes in and asks for something-and then I don't show him anything except what he asks for, because, if I do, he'll want me to throw in two accessories for the price of one. Oh, I know these car owners! They're tough birds! more thay get the more they want. They start off by wanting you to give 'em a car and they wind up by wanting you to give your gas and oil and service for a hundred years!"

By the time Henry got down to the end of this young oration he was going nicely. In fact, he was all full of breath for another mad dash but he ran out of words. So he puffed a couple of times—and stopped.

A Lesson in Real Business

"Henry," Reilly slowly began, and he wore that fatherly look which always laid Henry low and made him suspect he had put his foot in it. Reilly's successful years as Sennett distributer in and about Callawassa had brought a valuable trade experience, and he wasn't at all stingy about passing it on to some of the younger generation, of whom Bennett was one mad one who needed it. Henry was always doing what Reilly called "some darned fool thing."

"Henry," said Reilly, "I thought better of you than that."

"Better? What-"

"I thought you had long ago learned the lesson of real business. There was a time when you were one of the longest of long traders. And then you got the

ONCE AGAIN

That Little Old BACKBONE

Even though the industry has learned a lot about the folly of being spineless in business, there are yet those who believe they must give things to the customer. This story is founded on an incident that occurred at a trade conference in New York last week.

By RAY W. SHERMAN

bug that you could upset the world and spill it all your way by price-cutting. And then you ran off on a lot of other tangents. You have given birth to the darnedest collection of ideas of any man on the Row. I don't see where you get them.

"Of course, before you started in here you hadn't had much business experience, and I presume you weren't to be blamed for some of the things you started out to do, but I surely thought that your contact with the boys along the Row and your membership in the association would have taught you at least that one thing—"

"What?"

Backbone! Backbone! Backbone!

"That the man who tries to run a business without a backbone is a plain fool." Henry had received an answer to his

"what" and he had no more to say.

"Henry," and Reilly leaned forward across the desk, "if you and I could order a complete set of backbones for the dealers in this industry we could add millions of dollars to its assets, we could increase the net profits by thousands, we could bring joy, and happiness, and better living to thousands of wives and children, and we could make our old industry shine like a diamond and spin like a world that's just had its axle greased. There are two things we need—management and backbone.

"There are thousands of small business places in this trade that don't grow because they lack management, and there are countless others that have management and don't grow because they lack backbone.

"The man who can't sell a car and get the list plus freight and everything else is not entitled to an agency. He has no excuse for remaining in business. The man who can't operate a service station at a profit ought to see some of the stations that ARE netting a profit and then go back home and ask himself if he is as snappy a dealer as he thinks he is.

"The man who can't run a garage and get enough for his work and storage so that he makes a profit has no business operating a garage. The salesman who can't sell goods on their merits without dragging in a lot of concessions and extraneous considerations is NOT a salesman. The man who can't get it through his head that business is selling merchandise with satisfaction to the buyer and profit to himself is no business man and he might better liquidate and quit before he is forced out with nothing to liquidate.

"When you sell a car—GET THE PRICE. When you sell service—GET THE PRICE. When you sell accessories—GET THE PRICE. When you sell ANY-THING—GET THE PRICE OR DON'T SELL.

"The trouble with a lot of birds in this business s that they are AFRAID OF THEIR CUSTOMERS. They are filled with fear. They don't know that a customer is like a child or a dog—the more you discipline him in the right way the more he likes you and the more respect he will pay you.

When a man can't steer his own business ship with firmness through the most troubled seas he is a bum pilot and ought to be dropped.

"Just a little more backbone, Henry, old kid, and—"

But Reilly left it unsaid and merely swatted the upper end of Henry's backbone with a slap that jarred the Redman dealer's medulla oblongata.

And Now "After" the Tractor

MILWAUKEE, June 30—Damage of public highways in Wisconsin by the operation of tractors or other farm machinery having cleats on wheels exposed to the surface of the road is aimed to be prevented by a new law of the 1919 legislature, which has added the following new section to the state highway code:

"No person shall, within the limits of any public highway, plow, cultivate or otherwise work any lands in such manner as to interfere with or obstruct the drainage in any public highway ditch, nor shall any person operate any farm or other machinery on, over, along or across any public highway in such manner as to materially damage the said highway."

A fine of from \$10 to \$50, or imprisonment from 10 to 30 days, is provided as a penalty, in addition to which the violator must restore or pay the expense of restoring the highway to its former condition.



Nine Bodies from a Set of Attachments

Reo Provides Standard Parts by Means of Which the Purchaser Can Build Up a Body to Suit His Needs

Thas been found by the Reo truck sales department that 50 per cent of the purchasers of Reo trucks bought the stripped chassis, although a body which was very good from a general standpoint would be supplied with the truck. The convertible body was studied, but found to be rather complicated; therefore, it was decided to provide a set of attachments by means of which the purchaser could select what attachments he desired and build up any sort of necessary body. The result is that with these attachments used in various combinations, at least nine different types of bodies can be made up to suit practically any variety of trade.

The basic body is an express body. On this can be put the various attachments to build the body up in a variety of forms.

The chassis and attachments are let-

tered as a key, below being a list of the key letters together with price.

Different types of combinations can be made with these attachments. For in-

CHASSIS AND ATTACHMENTS

- A—Chassis, \$1250.
- B-Express body and seat, \$100.
- C—Canopy top, \$50.
- D—Cab and curtains, \$30.
- E-Windshield, \$20.
- F—Grain-tight top box with end gate, \$30.
- G-Stock rack sides, \$15.
- H—Grocer's side rails and rack, \$10.
- I—Seats and back rests, \$35.
- J-Bows and khaki top, \$50.

stance, with chassis and attachments A, B, C, E and H, a double decker, grocer's or truck gardener's van can be made to sell for \$1430. A hog or sheep rack wagon can be made up for \$1415 by using attachments A, B, D, E and G. To make up a top box, grain-tight wagon selling for \$1430, attachments A, B, D, E and F would be used. This gives a dump type of body suitable for handling grain. The body is not a tilting type, but all that is necessary to do to dump it is to drive on the scales, weigh the grain, lock the brakes, place the hook under the front axle and with the simple hand hoist raise the front end of the truck for dumping.

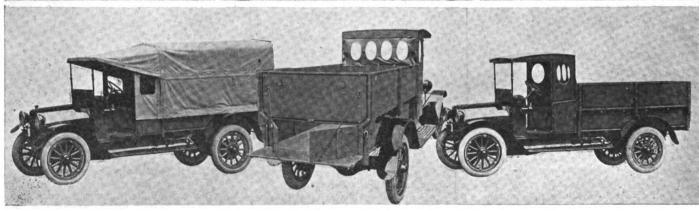
A great variety of other bodies can be built up, such as the carryall made out of attachments A, B, C, E and I, or an army type or schooner made out of attachments A, B, E and J, or a canopy top express made out of attachments A, B, C and E, or an express with driver's cab made out of A, B, D and E, and various other combinations are readily made up.

The attachments are featured by the Reo grip lock which does not depend on wood attachment and thus avoids swelling and shrinking. This is a metallic grip with a thumb screw or wing nut to clamp the stake in place. These attachments fit the Reo speed wagon which has a capacity of 1 ton, made by the Reo Motor Car Co., Lansing, Mich.









Top row (left hand corner)—Carryall type of body, selling complete for \$1,455, made of attachments A, B, C, E and I. (Center) Express with driver's cab, selling complete for \$1,400, made of attachments A, B, D and E. (Right hand corner) Double decker, selling for \$1,430, made of chassis and attachments A, B, C, E and H. Lower row—Army type or schooner form of body, selling complete for \$1,420, made of chassis and attachments A, B, E and J. (Center) Rear view of top box, grain-tight type of body, which sells for \$1,430, made up of chassis and attachments A, B, D, E and F. (Right hand corner) Top box, grain-tight type of body, selling complete for \$1,430, made of chassis and attachments A, B, D, E and F.

THE LAW

By George F. Kaiser

PERPLEXED

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Garageman's Liability for Freezing

A question that has been frequently asked on this page is "Is a garageman or warehouseman liable for damage to a car caused by freezing of the radiation system while it is being stored?"

The Supreme Court of Nebraska, in a recent case where stored goods were damaged by frost, held that the person storing the goods was not responsible because no negligence was shown on his part and there was not an express contract that he should keep the storage place frost proof.

The court in this case said: "I believe the rule to be that where goods are deposited with a warehouseman or bailee in good condition and are lost or destroyed, or are returned in a damaged condition, the warehouseman or bailee generally has the burden of showing that the loss or damage did not result from his negligence. Where, however, plaintiff's own evidence shows that loss or damage resulted from causes which do not of themselves imply negligence, then the burden is on the bailor to establish negligence.

In this case the undisputed evidence showed that the damage to the car was from freezing. Now it seems to me when the cause of the damaged condition is not involved in doubt, but is known at the start, and the cause is one which does not necessarily imply negligence on the part of the defendant. the burden was upon the plaintiff to show either some affirmative act by defendant which caused the freezing, or to show that defendant owed a duty to take some affirmative steps to avoid that result, and was guilty of negligence in doing the one or failing to do the other, and that such negligence was the proximate cause of the freezing.

"I think the rule was at common law, and still is, that the warehouseman's liability may either be limited or enlarged by special contract, but that the warehouseman cannot, by special contract, protect homself against gross negligence, or probably against negligence of any degree, nor against his own fraud or criminal acts.

"It is doubtful whether ordinary care, in the absence of an express contract, requires the warehouseman to keep his warehouse frost-proof. Whether it is within the power of the bailee to exempt himself from liability for negligence or not, I am of the opinion that where

the bailor inspects the premises and contracts to deposit the goods in the place selected by himself and knows, or has an equal opportunity with the bailee to know, its condition, that no duty is imposed upon the bailee to make any alterations or changes in the premises so as to make them safer or better than they were in at the time of the inspection.

"The law appears to be that if the bailor knows the unfitness of the place of storage of goods provided by his warehouseman, or has equal opportunity with him of knowing it, and sees and inspects the storage place, and there being no latent defects in it, approves of it for his purpose, he will be equally at fault with the warehouseman if damage results to his goods. There are but few cases on the point directly, but the rule is deducible from those given, and is approved.

In other words, it cannot be said that the bailee is negligent where he has done nothing which he should not have done or where he has not omitted to do something which his contract required him to do; in the present case it is undisputed that the plaintiff inspected the premises and the car was stored in the exact place agreed upon. He says that there was no artificial heat there. and so far as I am able to discover he was as good a judge as to whether the basement was frost-proof or not as was the defendant. In addition to this he expressly agreed (so the jury found) that he would assume the risk of damage from freezing.

"I am of the opinion that it was within the power of defendant to exempt itself from liability from freezing, and since the jury especially found that such contract was made. I do not feel that there was any error in the instructions complained of which entitled plaintiff to a new trial."

Is a Priming Cup a "Luxury"?

Editor Motor World: Will you please advise if a dealer sells priming cups must he charge the customer for the Federal luxury tax or doesn't he need to make his charge?—D. B., New York, N. Y.

Answer—This tax does not apply if the cups are sold by a cup manufacturer to a car manufacturer to become an original part of the car but it does apply where cups are sold by a dealer to an owner, etc., for replacement or repair.

Dealer Must Read Contract

A NOTHER rule of law that is not generally understood, or if understood is not always followed by dealers, is that a person is obliged to read a contract if he is able to read, or have it explained to him if he cannot read, or else he cannot deny liability under it unless there is fraud, misrepresentation or deceit on the part of the other party.

By way of illustration: If a man comes into a dealer's place of business and wishes to sell certain goods, and the dealer agrees to buy them and signs his name without carefully reading the contract, he is bound by the contract provisions, and if a clause such as "All the conditions of this contract are mentioned herein" is contained in the printed form presented by the salesman, any verbal agreements that the dealer may have made with the salesman are invalid and the courts will hold that the written contract contains all the terms agreed upon.

The courts have time and again decided that when a person who can read and write executes a contract he is bound by it when there is no fraud, misrepresentation or deceit, and the fact that he did not read it or was ignorant of its contents is no defense.

The courts have further held that a man who cannot read or write is under duty to have the contract explained.

Who Owns the License Plates?

A TRADED to B a car. B sold the car to C. A applied and paid for 1919 license plates. The numbers had not arrived when A disposed of the car. Now A refuses to turn over the 1919 numbers to the owner of the car without paying for them. The car changed hands. Would C be compelled to apply for numbers this year?—J. L. Maynes, Shenandoah, Iowa.

Answer-C certainly will not be allowed to operate his car without procuring a license. The motor vehicle law of your state provides that immediately upon the sale of a motor car the seller must give notice to the Secretary of State and within ten days the buyer must likewise give notice. It is further provided that the buyer upon payment of a fee of \$1 will be indexed as the owner of the car. Of course if the plates did not arrive before A sold the car, he can hardly be blamed for asking you to reimburse him. If you cannot come to. some agreement with A, write direct to, the Secretary of State.



SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

A Large Two-Story Building

Character of business—Sales, and service of cars, trucks, tractors and farm lighting equipment.

Details wanted—Building 72 x 125 ft., two stories, passenger-car show-room, accessory store and stock-room, a showroom for trucks, tractors and farm lighting equipment, and a roomy shop with special rooms for welding and vulcanizing and electrical work, truck salesroom and ramp.

Name—Ford Garage, Lethbridge, Alberta, Canada.

Answer—You have given few details, but judging from your letterhead we concluded it was advisable to provide for a passenger car showroom, accessory store and stockroom, a showroom for trucks, tractors and farm lighting equipment, and a roomy shop with special rooms for welding and vulcanizing and electrical work. The size and shape of the lot lends itself readily to the construction of a ramp without interfering with the general layout, and so this has been adopted in place of an elevator.

A single street door gives access to car and truck showrooms which are adjacent for convenience. A sliding door connects each room with the garage so that cars, trucks, tractors or lighting equipment may be moved in or out with facility.

There are two entrances to the garage, one on each street. The front entrance gives direct connection to the ramp, but also allows entry to the main floor except when the space adjacent to the drive is filled with cars, in which case, as at all times, the side entrance to the ground floor is available. The side entrance is really the main entrance to the lower floor, both for car storage and service work. As much of this space as required may be utilized for the storage of new cars, cars taken in trade, cars undergoing minor adjustments, cars waiting for admittance to the shop or cars repaired and awaiting their owners. Any remaining space may be used for general car storage. This arrangement naturally gives great flexibility in the capacity of the shop.

The wash rack is conveniently arranged at one side of the entrance and is separated from the remaining car space by a thin partition, thus effectually confining the water and dirt. The width of this space should be 15 ft. so that when not in use it may be employed for the housing of two cars.

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

There is a large closet under that part of the ramp, which is roughly from 4 to 8 ft. in height. This may be used as a locker room for owners' belongings or for any other purpose.

As explained many times, the arrangement of cars with two rows on one side of the aisle and one on the other gives maximum economy and causes no inconvenience if care is taken in placing the cars. Those next the wall should belong to owners who habitually come in early and go out late, those in the front

row belong to those who enter late and leave early, the latter therefore being out of the way when the former are departing or returning, and the single row on the other side of the aisle is for owners whose cars cannot be so classified.

It will be noted that in the space forward of the ramp there are two short rows of cars placed endways hemmed in by two rows. The cars in these rows should be dead storage machines or at least cars that are rarely used.

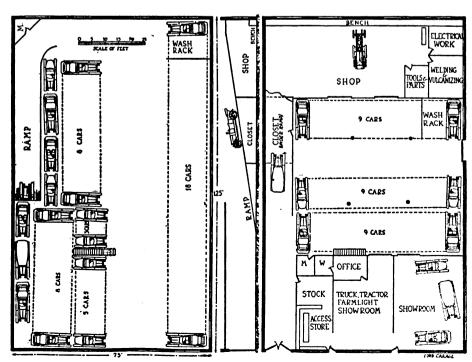
Posts on the first floor should be eliminated as far as possible by allowing the partitions to support the weight of the second floor. Even so it will be advisable to place a few posts somewhat as indicated. No posts are necessary on the second floor as the roof will be self-supporting.

The heating plant should be placed in a small basement located under the truck showroom and connecting with the garage by the stairway shown.

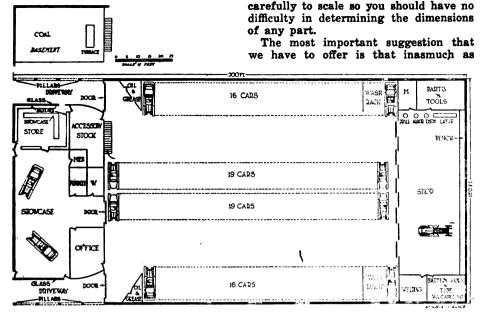
A One-Story Concrete Building

Character of business—Studebaker, National and Cole passenger car and Federal truck sales, service, accessories, battery charging welding, car sales 60, truck sales 20 per year, stock of 200 tires.

Details wanted—One story concrete



Two story brick building with two entrances for the Ford Garage



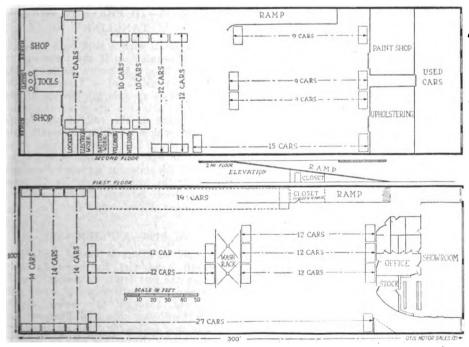
One story concrete building, with show space for four cars, shop and accessory stock room in rear, for the Ansonia Garage

block building on a lot in the middle of a block, lot 100 ft. wide, 200 ft. deep, double entrance, showroom for four cars, offices, accessory store, stock room, space for storing cars, wash stands, etc. Shop and parts department to be in rear. Row of concrete pillars through center of building. No rear exit. Contemplate partitioning off the rear of building for service station.

Name—Ansonia Garage, Ansonia, Conn.

Answer—Your plan is very good indeed and we have changed it only in minor details. The whole plan is drawn double driveways, one at each side, are desirable, you leave these driveways open, using columns to support the walls of the second floor. Glass should then be used in the sides of showroom and accessory store. Doors are placed at the rear of the driveways but not at the front. This arrangement gives more light to your showroom unit, particularly if there are no buildings close on either side.

The shop we have provided should be ample for the business you have. There is a room for welding and another where both tube vulcanizing and battery charging may be carried on. At the opposite side of the shop is a good sized room for tools and parts.



Building 100 x 200 ft., two stories, with showroom, garage, warehouse, paint and machine shops for the Otis Motor Sales Co.

Sales, Storage and Service

Character of business—Sales, storage and service of cars and trucks.

Details wanted—Building 100 x 300 ft., two stories, garage, warehouse, paint shop, trim shop, repair shop, ramp or elevator, offices, showroom, etc.

Name—Otis Motor Sales Co., Utica, N. Y.

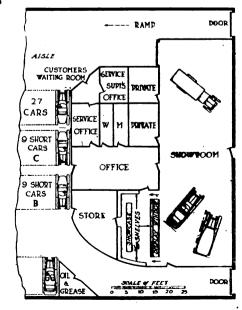
Answer—In planning a building so large as this it would hardly be possible to meet your ideas in every detail, but we have studied your requirements with the view in mind of making everything as convenient as possible and yet at the same time wasting no space whatever, even if there is plenty of it. The disposition of the showroom at the front in somewhat the form of an "island" is unique and it should prove both attractive and easy of access from every angle. The service offices are tied right up with the other offices, yet at the same time they are so located that the service shop is at all times under observation.

The shape and size of the building lends itself particularly well to the use of a ramp and we should certainly advise its use instead of the usual elevator.

You have not mentioned anything about provisions for merchandising accessories, but we certainly presume that you are not going to overlook this important branch of the selling trade. We have arranged a display window, shelves and a store in the space at one end of the group of offices and this is so set back in the salesroom that it is not in the way, yet is within full view of all parts of the salesroom.

Victor Rubber Opens Office

SPRINGFIELD, ILL, June 28—The Victor Rubber Co. of this city has opened a branch at 1720 South Michigan Avenue, Chicago.



Plan of Otis showroom
in detail

Repairshop Shortcuts

From Motor World Mechanics

No. 2188—PORTABLE WORK BENCH

A portable work bench that saves much time running back and forth for tools and parts is made up out of light lumber after the design shown in the illustration. This is especially convenient where it is not possible to bring the job over to the bench, as in this case the bench can be brought to the job. Large casters allow the bench to be moved with ease even if the load is fairly heavy. The top is about 4 ft. square and the shelves underneath are made so that they are about 3 ft. square. The edge boards around the sides and back prevent tools and parts rolling off.-Commercial Vehicle

No. 2189—STEERING WHEEL PULLER

When the spider of a steering wheel sticks to the shaft of the steering column, it may be removed without damaging anything by using a special puller which will fit nearly all makes of steering wheels. The nut on top of the shaft is removed first and the plate placed on top. Two holes are bored near the ends and through these holes extend bolts which also go through the l wer plate. This lower plate, in addition to the two holes for the bolts has a notch cut so that it will fit around the steering column. When the nuts are pulled up with a wrench, the notched piece pulls the spider up off the shaft.—Albert Wreszin, Reo Service Station, New York City.

No. 2190—HOT VAT FOR CLEANING PARTS

A hot vat containing a soda mixture will quickly remove oil, grease and mud from parts dropped into it. The mixture is kept hot by means of pipes which run through it, the flame of a Bunsen burner being the heating agent. The heat is regulated from the outside by means of the air lines and gas cock, the pipes being so arranged that one air line comes first, the gar pipe next and the second air line last. This is to secure a perfect mixture of gas and air to get a good blue flame in the pipes. The flame goes through the pipes and the exhaust comes out at the top. The mixture used consists of 60 gal. of water and 16 lb. of soda.—Commercial Vehicle.

No. 2191—SWAGING PISTON-PIN BUSHINGS

When a piston-pin bushing is worn so there is lost motion between the pin and the bushing, the hole in the bushing can be reduced slightly in size by using

Make a Dollar

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay you a dollar for every one accepted.

The only requirements are these:

- 1—Describe the shortcut briefly but clearly, in few words.
- 2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.
- 3—Write on ONE side of the paper only.
- 4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

two swaging tools made out of shafting turned down at the ends so that the smaller part fits into the hole in the bushing. One of the swages is held in the vise, the connecting rod placed on the top and the other tool fitted into the upper side of the hole. A few blows with a fairly heavy hammer will reduce the length of the bushing with a corresponding reduction in the size of the hole. The hole is afterwards reamed out the correct size.—N. H. Turkle, Wellington, Kan.

No. 2192—CUTTING PAPER FROM FLOORBOARDS AND RUNNING-BOARDS

A new car usually has brown paper over the floorboards and runningboards to protect them in transit and a good way to remove this neatly is to fasten a safety-razor blade in a small block of wood and use this to cut around the edges of the paper. No ragged edges will be in evidence and a nice job can be done around the pedals and levers.—Percy G. Wing, Ven Denmark, Motor Co., Elmira, N. Y.

No. 2193—LONG COLD CHISEL

A long cold chisel is especially useful for cutting out rivets on spring hangers or up under the car or cross-frame members. Such a chisel is easily made by cutting off a suitable length of cold rolled steel bar, the diameter being the same as that of the cold chisel. The bar and the cold chisel are then fastened together with a piece of pipe or tubing which fits them both very tightly. If this pipe is shrunk on by being heated and then allowed to contract on the two parts, a very strong and serviceable long chisel will be the result.—N. H. Turkle, Wellington, Kan.

No. 2194—IDENTIFYING TIRE REPAIRS

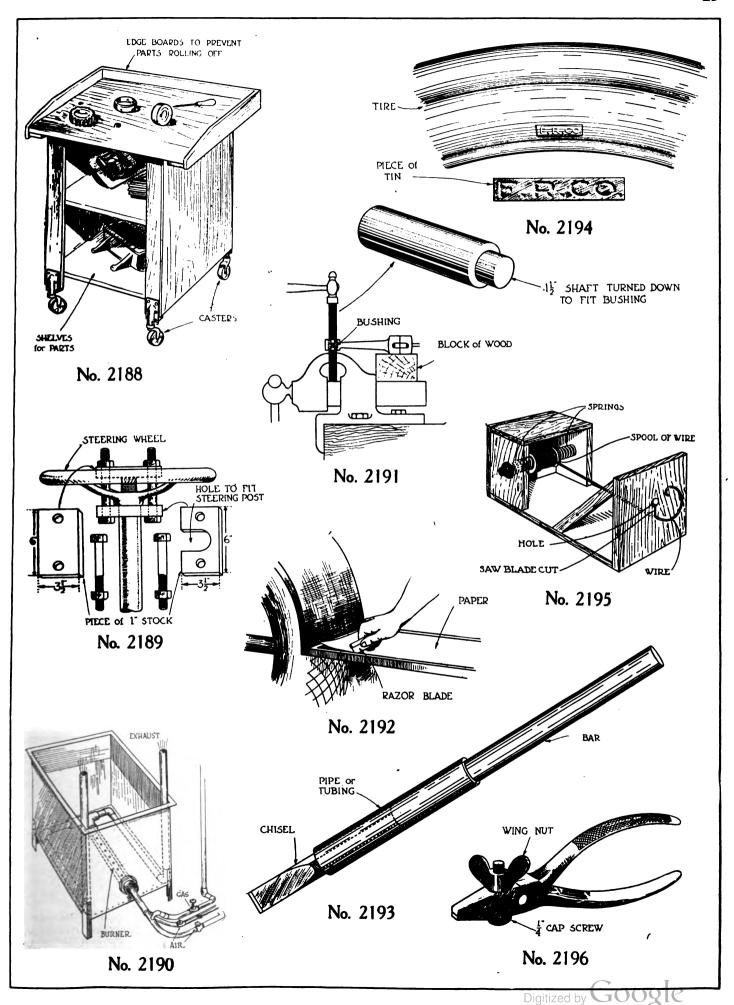
If the initials or some other identifying marks are placed on tire repairs, proof that the repair was or was not made at the shop may be shown. Such a mark is easily made without defacing or damaging the tire by inserting a small slip of tin with the marks stamped on it between the repair and the bead iron. When the tire has been cured, the tin can be pulled off and the marks will appear on the surface of the tire.—Joe Hamblet, Jr., Florence Rubber Co., Florence, Col.

No. 2195—TO PREVENT WIRE TANGLING

When small wire is kept on a spool, it is easily tangled up if the loose end is not kept taut. A device to keep this end taut consists of a frame, a bolt which acts as an axle for the spool, two springs to act as a brake on the spool and a board at the end of the frame throught which is drilled a small hole and a saw cut run from this hole. The end of the wire is threaded through the hole and the saw cut is narrow enough to pinch the wire, preventing it from running back through the hole.—Oliver Wittenmyer, Pottstown, Pa.

No. 2196-A PLIER VISE

A pair of pliers is easily made into a small hand vise by boring a hole through the two jaws, softening them if necessary, then putting a cap screw and wing nut through the hole. Small articles such as keys and pins can be held in this device for filing or grinding, or the pliers themselves can be held in the vise while the work is being done.—Percy G. Wing, Ven Denmark Motor Co., Elmira, N. Y.



Editorial Observation

Push the Truck

A MONG dealers at this time one of the major phases of activity should be that connected with the sale of the motor truck.

The truck will eventually come into its own and be a product of volume sales, but it will arrive that much sooner if dealers get behind the truck and push it actively at this time.

An example of the need for more than usual activity at this time is found in a story on the news pages of Motor World last week, in which it was shown how the farmer truck market in the Southwest may undergo curious changes. The farmer does not need the truck to-day as much as he will need it when he wants to move his wheat. But when he wants to move the wheat there may not be trucks enough to supply the peak demand. And after the wheat is moved the demand will lessen, wherefore, the thing to do is to sell the trucks NOW. If they are not sold NOW there may be an eventual sales delay of indefinite length.

In every line of business there is going to be a need for trucks. And in these many lines of business trucks will prove themselves of great service once they are put into operation. If a truck is wisely sold it soon finds work for itself and then the usefulness becomes so great that the user wonders why he didn't buy it before.

Every truck that is put into service means the sale of more trucks. Each working truck is an advertisement for the entire truck industry. The more trucks there are sold this year the greater will be the business next year.

During these days when the truck business is being developed there will of necessity be a lot of sales ex-

perimentation and promotion work that will not net a large volume of sales. Some dealers will not net large profits until they have operated for a time in a more or less experimental way and have found the best way to handle their particular business. Selling trucks is like running a new car; it will run, but there is always a certain amount of "getting acquainted" that is necessary before satisfactory and even-running operation comes.

Of course, it does not follow that dealers should rush carelessly into the selling of trucks. As in cars and everything else, there are bound to be good trucks and bad trucks. Some can deliver the goods and some can't. Some factories can turn out a volume and deliver to the dealer while others will be handicapped. There is no use having the agency for an article unless the article is going to be manufactured in a consistent manner.

Every dealer should exercise discretion in starting in the truck business, but he should not, on the other hand, operate on the policy that he must wait a couple of years before getting started. If he is ever going to handle a truck he might as well begin his investigating now and get set and help push the business along, so that next year there will be a real truck business.

Trucks are going to be sold, users are going to like them and dealers are going to make money selling them. Those facts are as certain as that September will follow August. It is part of the world's development. Better commercial transportation is an essential in the progress of civilization.

Investigate now, get set in the business and help get it going in a big way.

What About Prohibition?

WHEN men run out of conversation on the labor question they generally turn to prohibition as a subject for consideration, and it may be pertinent to inquire as to any effects it may have on the automotive industry. There is room for considerable speculation and some real cogitation.

Can the readers of Motor World contribute to a discussion of this question? There should be many more-or-less authorities on the subject because prohibition has been in effect in many sections for a

long time and an opportunity has been presented to test its workings.

In some sections dealers state that when a town goes dry the sale of cars increases. Is this true generally?

Will there be any beneficial or detrimental effect on the workings of dealer organizations, or on sales, on service and its amount, and on any other phase of the automotive trade? If so, what?

Comment from readers is invited.



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Preach Optimism

Editor Motor World: We wish we could give you a real live article that would stir the very souls of the manufacturers and jobbers and wake them up to the real situation.

The way we view the situation it is a very serious one. It has become a habit to talk high prices, high wages, strikes, Socialism, Bolshevism, Anarchism, etc. The habit has grown and helps make it a reality. A habit is a thing that takes hold of one's nature and before they know it they have established this habit to such an extent that it is hard to break off. It would be much better if the people would talk only good times, bright business prospects, prosperity and get the people stirred to the thought that prosperity is ours.

Never in the world's history has there been such an opportunity. We must build up what has been torn down or destroyed, and this building up will be done at the highest wages the world has ever seen or known, both for skilled and unskilled labor. Wages have been raised and they cannot be lowered to the prewar level in a long time. High prices of living and high costs of manufacture must not choke the prosperity. It will go rushing on like a swollen stream caused by a cloudburst.

Business must go forward because of necessity and because of supply and demand. The inventive genius of the United

THE FLAT RATE PLAN

Are you using the flat rate plan of charging for repairs? Motor World ran a series of articles on this plan, the first installment of which started in the April 16 issue. Many service men have read the articles, some have tried it and others are preparing to put the plan into effect.

Are you trying it? And how is it working out in YOUR plant?

States has surpassed the world and many surprises are yet to come; but the demand for labor to make machinery, to produce the harvest, to save it and to transport it, is greater than the world has ever seen and must be supplied. The manufacture of hardware and other products to rebuild with must go on. There is already a shortage. There will be a shortage for years to come. Then, when you consider the shortage of labor all over the world, you must see that there is nothing ahead but progress.

America will be called on to furnish the bulk of the material to rebuild and to furnish foodstuffs as she has never been called on before. Prosperity is ours if we will accept it. If we refuse it, if we sit and talk hard times and high prices, and talk of the coming trouble, we will help make the world pessimistic. If we sit still waiting for old prices to return, our business will go from us. It will go to the man who is on the job, who is grasping the opportunity and who can see beyond the horizon.

What we need to do is to get in our canoe and paddle, paddle hard, keep on paddling and you will find we will soon need more room, for we must grow.

No one need be afraid to buy anything that is used in rebuilding. You can buy as you have never bought before because the demand is greater and increasing every day. The progressive business man is buying all he can, he is selling and the demand is sure to increase. The average working man, as well as business man, is laying up more cash than he ever did before. He is buying homes, buying bonds, helping hospitals, etc. Millions are being given to the various churches as never before for the purpose of sending missionaries all over the world, building schools, churches, hospitals, etc., to raise the morals of the world to a higher standard, all of which will bring prosperity and peace. The laboring man will soon quit the drink habit and form the habit of saving and banking his money and buying homes, all of which will help uplift the humanity of the world.

We, as American citizens, want to return to the foundation of our republic. We want to read the Declaration of Independence, live it and talk it rather than talking Socialism, Democracy, Bolshevism, Free Liberty, Anarchy, etc., things that are not real. We want to get back to the foundation which has made America the most wonderful country in the world and the only successful Government of a free people, and the closer we stick to our Republic, the higher will be our morals.

May I add that our company has never lost an opportunity to manufacture all the goods we could. We may be an exception, but we have not found it possible to get goods in as fast as we could sell them. We have never for a minute talked or thought hard times, or high prices. We have simply gone forward. In the year 1918 we doubled our sales of 1917. In the first three months of 1919 we sold more goods than we did during the whole year of 1918. In the month of May of 1919 we sold more goods than the first six months of 1918. We have never raised the price. We started five years ago, and although the price of material has advanced, we were



The Atascadero Garage at Atascadero, Cal. This establishment was founded by a man from Texas who named it the Lone Star Garage. At that time Atascadero was in the wilderness; to-day it is the halfway station between San Francisco and Los Angeles by the coast route and Atascadero represents the highest success in co-operative farming communities

able to hold the price down on account of big increase in sales. We are adding new jobbers almost daily and we have no criticism or hard time story to report. Everything with us is progress. -No-Leak-O Piston Ring Co., Baltimore, J. E. Norwood, president.

"Play Fair with the Dealer"

Editor Motor World: This refers to an editorial appearing in your issue of May 21 under the caption "Play Fair with the Dealer." You recommend that the manufacturer guarantee stocks in the hands of the dealers and jobbers against decline. We cannot agree with your idea on this subject. Guaranteeing stocks against decline is a dangerous business practice at any time, particularly now. In fact, why should a manufacturer make such a guarantee? We cannot obtain a guarantee of this nature from the concerns from whom we purchase.

The price of steel was recently re-You can readily imagine the kind of replies we would have received had we written the various steel mills asking for a credit covering the stock of steel we had on hand at the time of decline. If the manufacturer cannot obtain a guarantee against decline from those from whom he purchases, how can he guarantee his products in the hands of the jobbers and dealers against decline?

During the past few years, manufacturers have raised their prices several times. At the time of such raises, jobbers and dealers throughout the country undoubtedly had on hand large stocks purchased at low prices. Is it not just as reasonable for a manufacturer to expect a jobber or dealer to send him a check for the difference between the low and the high price as it is for the jobber or dealer to expect the manufacturer to credit him when the prices are declined?

We agree with you that it is poor policy for a manufacturer to make special effort to load up the dealers and jobbers and then reduce prices. No diplomatic manufacturer would handle a reduction in this manner. On the other hand, we cannot possibly see any merit to your recommendation that manufacturers guarantee stocks against decline, and if you will give this matter your serious consideration, we believe that you will agree with us. We should like to hear further from you on this subject .- Milwaukee Auto Engine & Supply Co., Mil-

Answer-The particular point we wanted to bring out in the editorial to which you take exception in your letter related to the over-stocking of dealers prior to a decline in price. As a general practice, we would not want to go on record as saying that a guarantee of price is good business. There is a great deal of merit in what you say about your inability to secure guarantees in price from those from whom you purchase the material out of which you make your merchandise.

At the time this editorial was written, complaint had been made that certain tire manufacturers had gone out and stocked up dealers and then immediately cut the price from under the dealers. The margin of profits in the tires the dealers were selling was so small that they stood to lose money, and that we believe you will agree with us is not fair. On the other hand, many of the tire manufacturers, and we do not know but all of them, have now taken this attitude, and are guaranteeing their dealers against decline in price, and we believe we have nothing that is not common between us when we read over the last paragraph of your letter, which is practically all we desired to bring out in the editorial that appeared.

Disturbing Price-Cutters

Editor Motor World: It appears that you are trying to render a real service by helping the dealers solve their prob-

WANT SOME PICTURES?

Have the cartoons and other artists' drawings in Motor World ever struck your fancy?

If so, are there any of the original drawings you would like to have for yourself?

Any Motor World reader may have copies of cartoons and drawings he likes if he will ask for

First come, first served. What's yours?

lems. We have received some valuable suggestions from your magazine.

We find ourselves confronted with a situation that we are unable to decide just what step is best to take.

For years the automobile trade alone sold tires in the section. The policy was "Standard advertised tires at standard list price." When the hardware trade started handling tires the policy remained the same.

But now here comes the wholesale grocery and wholesale hardware into the business. They sell tires to consumers at dealers' prices. And carry leading nationally advertised lines.

The automobile and retail hardware people have continued their original policy only to find the trade going to the wholesale grocery and wholesale hardware people.

We have tried to refrain from the price-cutting business; we have also tried to stick to the standard advertised goods, but it looks as if we are to stay in the tire business our policy will have

to change. Your suggestions will be appreciated .- Valdorta, Ga.

Answer-In answering your letter we would like to ask if you have a trade association in your town? If so, have you ever taken up with the tire people or with your state association, if you have such a thing, the question that you have brought before us? An organization is one of the things that can do a great deal to correct a situation such as you have outlined. If there is no organization we suggest that you get in touch with George D. McCutcheon, manager of the Buick branch in Atlanta, who is one of the officers in the National Automobile Dealers' Association. Possibly he can assist you in starting some action which will bring the reform you hope for.

Under no circumstances would we cut prices. We would advise on the other hand that you put additional money into advertising and sales efforts, and by direct contact with car owners endeavor to preserve for yourself the business that other lines seem to be taking away from you.

Bitten by the Air Bug

Editor Motor World: I am a reader of the Motor World and find it to be very useful. I am in the garage business in this town and am making good. But the airplanes have hit me and I want to learn about them. I have been in the garage business for seven years and I have taken a course in the I. C. S. and made a grade of 90 on automobiles. I have done three years of Packard and Hudson work and two years of Buick work. Am perfectly sober and can furnish good references. I understand the Packard people are building planes and if you can advise me of the proper thing to do, it will be greatly appreciated.—L. G. Johnson, China Grove, N. C.

Answer-In order to get what you want we believe you would do best to make a connection with some aircraft factory, and suggest that you make your first attempts by corresponding with the Curtiss Aeroplane & Motor Corp., 2000 N. Elmwood Avenue, Buffalo, N. Y., and the Wright-Martin Aircraft Corp., New Brunswick, N. J., or the Packard people. —EDITOR.

Bolshevism and Its Antidote

Editor Motor World: Could you get me in printed form a number of pamphlets on that address of Mr. Harry F. Atwood, "Bolshevism and Its Antidote-Our Constitution"?

I would see that they are distributed or given around to men in the garage business. I for one think this address is excellent because God has made all the same, yet he created us with different ideals and ambitions. For example, a big man "reasons" about things in a big way; a little man will argue until midnight about some insignificant point which is of no value or importance to man, devil or angels. Like a dog with a rag between his teeth, he hangs on everlastingly.—A. Kirkwood, Boston,



A Department of

BETTER MECHANICS

No. 109

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the fifth of a series of Better Mechanics articles on the best methods The first installment appeared in the June 4 issue. of Ford repairing. Future installments will deal with operations on other parts of the car.

By J. Howard Pile

PART I_THE POWER PLANT (Continued)

HE Ford magneto consists of but three main parts and they are so simple to understand and so readily tested that no engine should be assembled without making sure that each of the components is in good mechanical and electrical condition. The only requirements are that the magnets have a sufficient amount of magnetism or pulling power, that they are assembled correctly on the face of the flywheel, that the coils are neither open circuited nor short circuited and, finally, that the contact is in such shape that it will conduct the current generated by the magneto to the place where it is supposed to go.

A most handy and convenient arrangement for testing the strength of the

What Has Been Covered

System in handling Ford service Labor operations covering repair work

Segregation of work Arrangement of departments Disposition of old material

- -The power plant
- I—The power plant
 1—Removing the engine from the car.
 2—Taking down the engine.
 2—Testing and straightening the crankshaft.
 4—Rebabbitting the cylinder block.
 5—Reboring the cylinders.
 6—Fitting new pistons.
 7—Fitting the piston pin.
 8—Aligning the connecting rod.
 9—Fitting the rings to the pistons.
 10—Burning In the Bearings.

This Week

Testing and Overhauling the Magneto

individual magnets is shown in Figs. 46 and 47. A slide allows the flywheel with the magnets in place to be pushed under

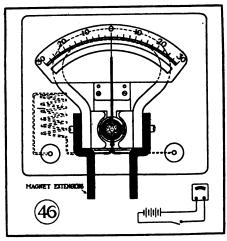


Fig. 46-Diagram of the arrangement used on a voltmeter to adapt it to measure the strength of the Ford magnets. The exof the Ford magnets. The extensions to the magnet in the instrument are soft iron

the measuring instrument and held evenly balanced in this position.

The measuring instrument is a direct current voltmeter with a range of 30-0-30 volts. Two extensions made of soft iron extend down from the poles of the magnet in the instrument, and they are spaced so that they touch the ends of the Ford magnets. The theory is that the voltage shown on the dial of the instrument will be proportional to the strength of the magnet being tested when a constant current such as that from a few dry cells is sent through the meter. By comparing the voltage registered when a magnet known to be good is placed under the instrument with the voltage shown on the one under test,

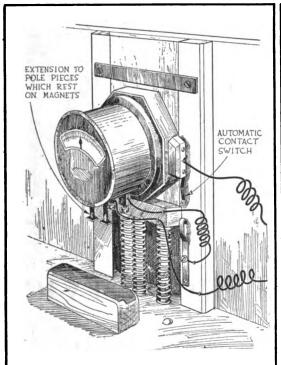
Next Week Overhauling the Transmission Future Installments

The carbureter Assembly of engine and transmis-The ignition system

Testing and running-in the engine The radiator Rear assembly Front assembly

Chassis frame and dash Body, top and windshield The steering gear

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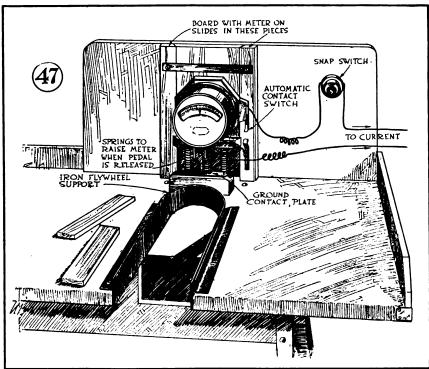


Fig. 47—The complete apparatus for testing the Ford magnets. The instrument is mounted on a sliding board which is held up by a spring and depressed by a foot lever under the bench. The current is only connected when the test is being carried out. An automatic switch may be installed to cut it off at other times. At the left is a view showing this switch

the exact strength of the magnet can be determined. The correct strength may run anywhere from 5 to 12 volts with six dry cells connected up, but each instrument must be tested up with a good magnet and the calibration secured in this way. Any standard voltmeter can be altered by any instrument maker when the conditions are known.

In case the testing instrument described above is not available, the test can be carried out a little less accurately but reliably by hanging a block of cast iron or steel from the poles of each magnet in turn.

1—Each magnet should be capable of lifting 2 lb.

2—Cut out a piece of soft steel such as cold rolled to the dimensions of 1% x 1% x 3 9/16. This will weigh just a shade under 2 lb. If it is not possible or convenient to cut it to these dimensions, use any other sizes that will bring the piece to a size so that it contains 6% cu. in.

3—Hold the flywheel vertically or in the position which it assumes when in the engine and hold the block of steel to each pair of magnet poles in succession. The test is to be made on each pair of like poles, that is, a pole of one magnet and a pole of the next magnet, not the two poles of the same magnet.

4—If the magnet will sustain the weight, it has sufficient strength, but if the weight drops off, then the magnet is too weak.

5—Regardless of which method of testing has been used, if one or more of the magnets is found under strength, an entire new set should be installed. The new magnets come from the branch or factory mounted on a board just in the position that they should be on the flywheel. However, a method of checking up the polarity of the magnet poles will be explained further on in this chapter.

6—When assembling or disassembling the magnets, if the flywheel is separated from the transmission, two pieces of wood about 1 in. thick should be laid on the bench so that the flywheel will have a good solid base to sit on while the cap screws are taken out or put in as the case may be. If the flywheel is still on the transmission, then the whole unit can be set in a box made so that the sides support the rim of the flywheel.

7—Cut the locking wire that runs through the heads of the steel cap screws

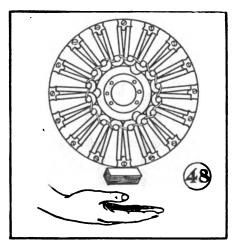


Fig. 48—A block of steel weighing about 2 lb. should hang from the magnets if they are of the correct strength. If they are too weak, the block will drop off.

nearest the center of the flywheel.

8—Remove the bronze screws that hold the pole pieces of the magnets down. These are or should be riveted after they are screwed in, so that the cheapest and most effective method of taking them out is to cut the riveted parts off with a chisel and replace them with new ones.

9—Remove the steel cap screws from which the locking wire has been previously removed.

10—The magnets can now be lifted right off the flywheel.

11—Clean off the flywheel, the screw

11—Clean off the flywheel, the screw holes and the magnet pole pieces.

Remagnetizing Magnets

A question that has caused a lot of discussion is whether it is practical to remagnetize Ford magnets rather than replacing them with new ones. There are several answers to this.

1—It is perfectly possible to recharge the magnets by any one of a number of different methods, but the expense of operating the charging mechanism, the skill required to get each magnet the same strength and the possibility that the magnet may go back again on account of softness or other causes, makes it inadvisable to attempt the operation unless it can be done on such a scale that one man can give pretty much all of his time and experience to it so that the results can be guaranteed.

2—It is even possible to remagnetize the magnets by sending a current of electricity through the coils when the magneto is assembled in the engine, but the magnets have to be very accurately in front of the proper spools, the right amount of current must be put through the coils and kept connected for just

the proper length of time. The possibility of reversing the poles is so great that there is only one chance in five of the operation turning out a success.

Neither of the methods mentioned in operations Nos. 1 or 2 are recommended or countenanced by the Ford Motor Co., or any of its branches, but the question is asked so often that we cannot pass over the subject of the magneto without making brief mention of the two methods and their disadvantages.

3—Dropping a magnet on the floor is very likely to cause it to lose its magnetism. Hammering or vibration will have the same effect, therefore the magnets should be handled with the utmost care and should be tested with the meter after having been assembled to the flywheel in order to learn whether anything has happened to them in the meantime.

Magnet Polarity

Every permanent magnet has two poles, a north and a south, and the magnets which form a part of the Ford magneto are no exception to this rule. It is immaterial which is which, but the magnets must be assembled so that the north pole of one magnet is held under the same pole piece as the similar pole of the next magnet. The next two poles will be south, then two north, and so on.

1—To tell which pole is which, hold two magnets close together. If two of the poles attract each other, then these are unlike poles, because unlike poles attract. In other words, one is a north and the other is a south. To get the like poles together, simply reverse one of the magnets. In this position the poles will not attract each other but will have a slight repellent action which will not be quite so marked as the attractive action of the unlike poles.

2—Another method that is often used is to bring a small pocket compass near the poles. After the magnets are assembled on the flywheel, if the compass is moved slowly around the outside of the flywheel, the needle should take a violent jump and reverse its position

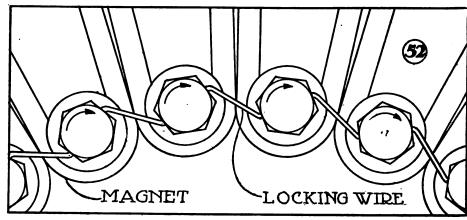


Fig. 52—This is the way the wire should be run through the heads of the bolts. If run through the other way, there is a tendency to leosen the bolts when the wire is pulled tight

every time it passes from one set of poles to the next set. If at any pair of poles the needle just wiggles and does not seem to know which way to turn, then this is a clear indication that this pair of magnets is wrongly placed.

3—One magnet improperly placed will cause a considerable reduction in the voltage of the entire magneto and will also make it jumpy so that missing may result. It might be possible to run the car after a fashion with one magnet in wrong, but all the other equipment would most certainly have to be in the very pink of condition to do so. No job should ever be allowed to pass through with a single magnet in wrong.

4—After ascertaining the polarity and arranging the magnets the way they should go, put them in place on the flywheel.

5—Catch the center retaining bolts in the holes, but do not tighten them up. These are the steel bolts.

6—Slip the outside spools under the ends of the magnet poles.

7—Put the pole pieces in place.

8—Catch the brass screws, which should be new ones, in their holes.

9—Set the screws down tight with a brace screwdriver.

10-Pinch the ends of the magnets in

with a pair of pliers until the sides of the magnets rest against the lug on the pole pieces.

11—Tighten the brass screws again.

12-Tighten the central bolts.

13—Put a new locking wire through the steel bolts, getting it as tight as possible and then twisting the ends together.

14—In inserting this wire, put it through the holes in the manner shown in Fig. 52, as this creates a tendency to tighten the bolts rather than loosen them.

15—Knock the four corners of the pole pieces down over the magnets so that there will be no chance of their catching in the coils when the parts are assembled.

Replacement Coils and Magnets

In replacing sets of magnets it should be noted that 1909 and 1910 cars used magnets 9/16-in, thick (order number 3275), together with coil assembly No. 3250B, both of which are now obsolete. Replacements should be made with magnet assembly No. 3276B, the magnets of which are %-in, thick and the thinner coil No. 3250D will fit in the assembly with this.

From 1911 to 1914, the magnet as-

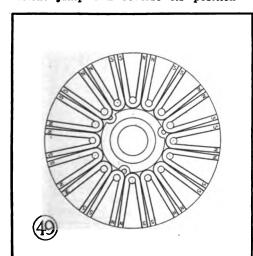


Fig. 49—Diagram of the correct assembly of the magnets on the flywheel.

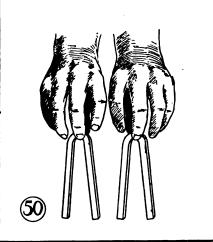


Fig. 50—This is the method used in determining the polarity of the magnets.

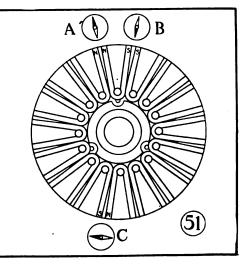


Fig. 51—Using a compass to determine the correct assembly of the magnets.



sembly No. 3276 was used, and these were %-in. thick. Coil assembly No. 3250C was used with this assembly, and these should be replaced with magnet assembly No. 3276B and coil assembly No. 3250D, the same as in the other case.

Testing the Coils

Each one of the coils on the coil assembly consists of a number of turns of copper ribbon running around the soft iron core. Adjacent coils are wound in the opposite direction. This, with the alternating arrangement of the magnet poles which pass in front of the cores, produces the alternating current in the magneto.

In order that the magneto may deliver the current which is generated to the terminal on top of the transmission cover, it is necessary that the circuit be continuous from the point where the first coil is grounded to the frame to the contact on the last spool which connects with the magneto terminal. Any break in this circuit will result in a dead magneto.

Of equal importance is the perfect insulation of the coils from start to finish. If there is a short circuit from the coils to the frame the current generated by the magneto will either be so weak as to seriously interfere with correct ignition, or there may be no current at all, depending on just which coil is shortened.

Tests for short circuits and open circuits on the coils are carried out by means of an electric lamp connected to some form of current. It really does not make any difference whether a battery is used or whether the current is taken from the electric light mains, although the latter is more convenient in most cases. Both ways are described.

OVERHAULING THE TRANSMISSION

will be the next installment of

Modern Methods in Ford Service

N EXT week's installment will cover the most advanced methods of overhauling and repairing the Ford transmission. Maybe you have been having difficulty in driving bushings out of the drums and perhaps you have sprung drums in doing this. Avoid this waste of time and material by installing apparatus and working methods which will prevent it.

READERS are invited to write for information on any points that are not entirely clear to them. The purpose of the series of articles is to show how the jobs are being handled by shops that are making money out of Ford repairing. This will enable you to do the work the same way so that you can make money out of it. Be sure to give us your name and address.

Using Electric Light Current

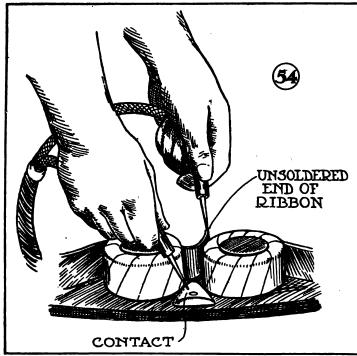
1—Connect up a set of test points with a switch and electric light, as shown in Fig. 53. For 110-volt current use a 50-watt lamp. Fuses of 6-ampere capacity should be used to protect the wiring. The cord is ordinary braided silk covered flexible conductor and the test points can be bought ready made or can be made up in the shop. They are simply wooden handles with steel or brass points, the ends of the flexible cord being soldered to the points so as to make a good connection.

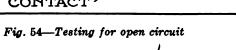
2—Before making any test at any time close the switch and touch the two points together to see if the light is in working order. When the points are touched together, the light should light.

To Test for Open Circuits

3—To test for open circuits, unsolder the end of the coil ribbon from the sheet steel frame. This can generally be done by prying it off carefully with a screw-driver, taking care not to break the ribbon off, but simply to pry it loose from the solder. If there happens to be too much solder, melt the solder with a hot soldering iron or a fine jet from a torch.

4—Hold one of the test points to the unsoldered end of the ribbon and the other to the bare metal against which the magneto contact presses. If the circuit is continuous throughout the coils, the light will light. If it does not light there is a break somewhere. Be sure in making this or any of the other tests, that the test points make a good metallic contact. Scrape off any shellac, oil, grease or other material till a bright clean surface is obtained and touch the test point to this spot.





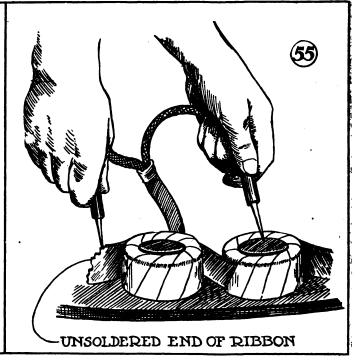


Fig. 55—Testing for short circuit



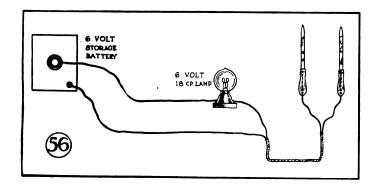
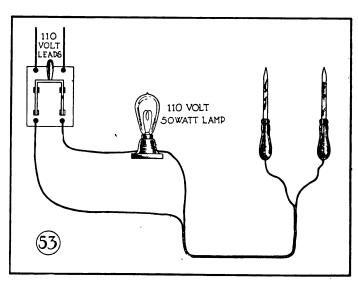


Fig. 56—Above—Diagram of the connections for test points and lamp using a 6-volt storage battery

Fig. 53—Right—Diagram of the connections of test points and lamp for testing with a 110-volt current



5—To test for a short circuit, the grounded ribbon must be unsoldered just as in the other test, but in this case, one of the points is touched to either the unsoldered end of the ribbon, or the contact end. The other point is touched to any point on the sheet steel frame or to one of the iron cores. Use the same precaution to get a good metallic contact, scraping off the shellac or other material that might prevent such good contact.

6—If the coils pass these two tests, they are in good servicable condition and can be assembled into the engine at any time after the ground connection is resoldered to the frame.

7—If the coils do not pass the test, a new set of coils should be installed. It is possible to repair defective coils sometimes, but it is cheaper and makes a better job to replace the whole coil unit. 8—If the coils are replaced be sure that the correct magnet set is installed on the flywheel. The groups are explained under the heading of "Replacement Coils and Magnets."

9—If the coils and magnets have been tested and assembled according to these instructions, there is no possibility of the magneto not working unless some damage is done to it between the tests and the assembly of the engine. Later operations will tell how to test the magneto after the engine assembly is complete. The gap between the coil cores and the magnets is 1/32 in.

Using a Battery and Light

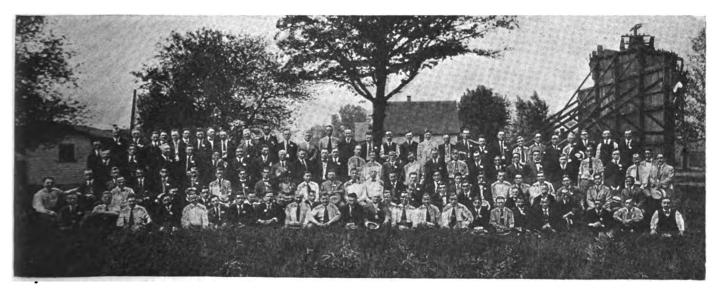
10—If the tests are to be carried out with a battery current instead of the electric light current, the connections are hooked up, as shown in Fig. 56, and the test then made in exactly the same manner. Of course it would be

necessary to use a low voltage lamp instead of the 110-volt lamp, and a handy size to use would be 6-volt 18 c.p. if a 6-volt battery is used. Do not use a battery when it becomes so weak that the current is unreliable. A slight resistance at the test points may throw the test all out.

11—Tests can even be made with the regular bell-ringing magneto, which is used in electrical line testing, but it is not so handy or convenient as the electric light method and it takes one more hand to turn the magneto crank.

A storage battery makes the best source of current for this purpose, and when it gets run down it should be recharged or replaced with another one in good condition.

Dry cells can also be used, but not less than six cells should be hooked up to get sufficient voltage to overcome slight resistances at the points.



Salesmen of the Champion Spark Plug Co. held their mid-year get-together June 9-15 at the factory in Toledo. F. B. Caswell, sales manager, arranged a program which included addresses on the finer points of salesmanship, trips to Detroit to visit the insulation plant and to Windsor, Ont., where ground was broken for the new Canadian factory, and an athletic meet at Toledo. One hundred and twenty-five Champion men were in attendance



The RETAIL NEWS

SOUTHWEST

A. F. Meyers, president and general manager of the A. F. Meyers Auto Co., Beaumont, Tex., the local agency for the Velie line, has opened an agency for the Velie line orange, Tex. L. C. Parker is in charge. His headquarters are at the Gulf Oil & Fuel Co.

Sam E. Wood, Jr., an automobile agent of Marshall, Tex., has purchased ground for the erection of a garage.

J. H. Robertson and Archie A. Moore of Pittsburg, Kan., will soon open a new battery service station.

The H. D. Walker Auto Company of Greenwood, Miss., bought the business of the E. M. Rowe Company, distributer of the Bulck, Diamond-T truck line and the Lalley farm lighting systems, in Little Rock, Ark. The Walker company is a \$250,000 concern. The new concern, which will operate in this territory under the name of the Arkansas-Buick Company, will occupy the old quarters of the Rowe company until a site can be obtained on which they can erect their own building.

Whiteker Brothers of Topeka, Kan., are erecting a \$60,000 garage at Eleventh Street and Kansas Avenue. The building will be 100 x 150, two stories and basement, and will be built of brick and reinforced concrete.

R. C. Waiton has opened a vulcanizing shop and tire salesrooms in Bonner Springs. Kan.

Robert Nelson and M. T. O'Nelli of Newkirk, Okla., will open a Dodge agency in a new building. The garage will be of brick construction, 50 x 150.

Roy Carter has established a steam vulcanizing plant in Beaver, Okla.

Figgs Bros., Valley Falls, Kan., have opened a repairshop in the Royal Hotel Building

The Crown Petroleum Cc., Vinita, Okla., will erect a \$4,000 filling station.

- O. A. Shoiden of Dallas, Tex., and Fred Oswald of Nowatam, Okla., have taken the lease on the new garage to be built soon on the north side of Young Street and east of Ervay. The garage will be a modern two-story structure containing more than 30,000 sq. ft. of floor space and will accommodate 200 cars. The lease on the building is for seven and a half years.
- J. D. Gunn and F. W. Ware, Honey Grove, Tex., have opened a tire and tube store.
- T. C. Alexander, Plainview, Tex., has opened a repairshop.

The Olden Buick Co., Valley Falls, Kan., has been organized to handle the Buick agency.

The Standard Oil Co. will erect a filling station at St. Joseph, Mo.
The C. & M. Tire Co., Topeka, Kan., has

The C. & M. Tire Co., Topeka, Kan., has opened for business, with A. P. Challis as manager.

The Southwest Tire Co., Springfield, Mo., has opened for business. Maines & Carumer are the proprietors.

Roark & Watson, Snyder. Okla., have opened a battery station, garage and vulcanizing and machine shop.

W. J. Foreman, Goff, Kan., has opened a tire shop.

The Stubb Motor Co., Kansas City, Mo., has been organized to distribute the Anderson Six in this territory. The firm was formerly known as the Roamer Motor Co., but no longer handles the Roamer.

G. A. Stevens, Kansas City, Mo., has organized the Stewart Carburetor Co. to market the Stewart converter.

Moore Brothers Co., Wichita, Kan., dealer in electrical supplies for motor cars, trucks and tractors, has taken a ten year lease on the ground floor of the Garden Theater Building.

The Paige Motor Car Co., Oklahoma City, Okla., will erect a large office and salesroom at Seventh and Broadway.

R. W. Stewart, Manhattan, Kan., has opened a Fordson tractor service station, and automobile and tractor repairshop.

The Whitlock-Hamilton Co., Wichita, Kan., has recently been organized. It will make a specialty of electrical work on automobiles, particularly on starting, lighting and ignition systems. Both members of the firm are from the Delco service department at Dayton, Ohio.

Munson & McNeeley, Cherokee, Okla., have secured the agency for the Dodge. They are also erecting a new building, 75 x 140, which will be completed during the summer.

O. H. Eden, Sapulpa, Okla., has opened a tire station.

The Topeka Velle Co., Tillman & Perkins.

The Topeka Velle Co., Tillman & Perkins, proprietors, has opened a new garage and accessory shop.

The House of Haun, Oklahoma, City, Okla., supplies, has opened salesrooms with a stock of \$25,000.

The Standard Oil Co. will erect a new filling station at Blue Mound, Kan. Permission has been granted for 20 years.

Lawson Brittain, Pollard, Kan., has opened a repair and paint shop.

PACIFIC COAST

The Mitchell, Lewis & Staver Co., Portland, Ore., has purchased for \$100,000 a site 200 x 100 ft. in Broadway, Everett and Sixth streets, and will build a three-story brick and concrete fireproof building. It is Northwest distributer for Mitchell and Jordan cars, All-American trucks and Monarch tractors.

B. W. Ruben and M. M. Reingold, Portland, Ore., have formed the Ruben Motor Car Co., Inc., with a capitalization of \$25,000.

The Air Compressor & Equipment Co., 329 Couch Street, Portland, Ore., has the exclusive distribution of the United States Two-Stage Air Compressor for Oregon, Washington, Nevada and Arizona.

Louis Roesch, of the Roesch Motor Car Co., Seattle, and Northwest representative for Atterbury truck, has purchased an interest in the Atterbury Truck Sales Co., Portland, Ore. F. H. Nash remains president and manager, with Mr. Roesch as vice-president.

Paul Staiger of Paul Staiger & Co., Portland, Ore., has purchased the Auto Sales Co., and will operate both firms under the latter name.

The Kelly Tire Sales Co., Portland, Ore.. has removed to a new 50 x 100 brick building erected for it at Tenth and Burnside streets.

John Balk of Los Angeles has gone in the used car business at 908 South Olive Street.

Barney Oldfield has established a tire agency at 228 South Los Angeles Street, Los Angeles, known as the Oldfield Tire Co. R. R. Colby is manager.

Standard Four Tire Co., George W. Davis, manager, has opened a Pacific Coast branch 31 342 West Pico Street, Los Angeles.

P. M. Cannon, 606 West Pico Street, Los Angeles, has opened the Insyde Tyre Store.

Roy Mattice has moved his tire and vulcanizing business into his new building at 1229 South Grand Avenue, Los Angeles.

R. I. Magee has opened a tire store, known as Mack's Guarantee Tire & Rubber Co. at 625 South Olive Street, Los Angeles.

William McKay has been appointed manager of the Seattle branch of the William L. Hughson Co., Federal truck distributer, to succed Roy Satterthwaite.

W. H. Hamilton, Portland, will erect a brick garage, to be 50 x 50, at 81st and Glisan streets.

The Universal Tire Filler Co. has sold its Seattle branch to a corporation which includes E. B. Swart, general manager, and H. T. Jacobi, sales manager.

H. G. Stevenson, Seattle, has purchased the Fisher Tire Shop at 85 West Marion Street.

G. A. Shirley has been appointed territory manager for the Kimball-Horn Co., Seattle, Apperson distributer in the Northwest.

Regner & Fields, Inc., Portland, Chevrolet dealer, has changed its name to the Fields Motor Co., and has moved to new quarters at Grand Avenue and East Burnside Street. A. W. Regner, one of the partners, has retired from the concern.

J. H. Graham, Portland, Case Six, Scripps-Booth and Denby truck distributer, has moved to new quarters at 446 Stark Street.

D. C. Warren Motor Car Ce., Portland, distributer for Velle and Peerless cars and Velle trucks in Oregon and part of southwestern Washington, has taken the Velle distribution for all of Oregon, all of Washington and northern part of Idaho.

Oregon Motor Car Co., distributer for the Studebaker cars and Winther trucks, has taken the agency for the Master truck in Oregon and southwestern Washington.

Smith Motor Co., Bellingham, Wash., will erect a one-story brick garage, 100×125 . to cost \$25,000.

William Bernhard, Seattle, will build a onestory mill constructed garage building, 120 x 60, to cost about \$25,000. Large machine shops, display room and boiler room will be included.

Ahren & Ahren, Stephens motor car agents. Spokane, will occupy a large brick garage and salesroom to be erected in that city Building will be two stories, 150 x 120, costing about \$80,000.

J. J. Southard, Aberdeen, Wash., will erect a concrete garage and salesroom, 50 x 130. to cost \$20,000.

Thompson & Shepard, Seattle, will erect a mill constructed garage building, 41 x 40, at 2501 39th Avenue, S. W.

S. A. McGraw, formerly connected with H. W. Johns-Manville Co., has purchased the City Garage at Hayward, Cal., including the Ford agency.

The Original Fruitvale Garage, 3422 East 14th Street, Oakland, Cal., has added a used-car sales department.

B. L. Bennett has opened used-car salesrooms at 3422 East 14th Street, Oakland, Cal.

J. P. Treder has opened a repairshop and vulcanizing plant at 2333 East 14th Street. Oakland, Cal.

P. V. Kimberlin has been appointed manager of the Grant D. Miller Garage at 2533 Bartlett Street, Oakland, Cal.

Brash Brothers & Bowers, Inc., are erecting a new garage building, 72½ x 150, on 12th Street, between 22d and 23d avenues, Oakland, Cal.

L. M. Johnson, formerly connected with the Gates Service Station at Denver, has established a Gates Half Sole Sales and Service Station at 934 MacDonald Avenue. Richmond, Cal.



- A. J. Thaiman and E. M. Milner have purchased the Seventh Street Garage and Machine Shop at Richmond, Cal.
- C. C. Holloway and F. Carpenter have opened a Ford and Dodge repairshop at 1810 MacDonald Avenue, Richmond, Cal.
- F. Wood has established a Gould battery service and sales station at 1636 MacDonald Avenue, Richmond, Cal.

Berthelsen's Garage, 2015 San Pablo Avenue, Oakland, Cal., has been appointed Grant dealer for Berkeley.

H. F. Carson, E. E. Johnston and Joe G. Venable have purchased the Bay Cities Tire Company from W. M. Shear at 2329 Broadway, Oakland, Cal. The firm, which distributes Swineheart tires, has entered the business of selling tires on time payments, and has opened a branch at 508-510 Van Ness Avenue, San Francisco.

A. M. Scott and R. G. Barker have formed the Scott-Barker Tire Co., and opened salesrooms at 2256 Broadway, Oakland, Cal.

The Beach Vuicanizing Works have been established at 454 Turk Street, San Francisco.

MIDDLE WEST

Loring DeGroff, Delavan, Wis., Mitchell and Dodge dealer, has acquired the Delavan Garage and Service Station of Jerome Terwilliger, Clinton, Wis., Nash dealer in Walworth County, who will handle Delavan business from Clinton. Ralph Densmore, who managed the Delavan branch, has joined Terwilliger's salesforce at Clinton.

J. F. and F. E. Rassch, Milwaukee, Wis., have formed the Dependable Tire & Welding Co., 890 Third Street, to deal in Ajax tires and do general tire and machine repairing.

The Holland Garage & Trucking Co., Milwaukee, has been incorporated with a capital stock of \$50,000 to conduct a garage, service shop, storage, etc. The headquarters are at \$138-4522 Lisbon Avenue. Ernst Holland is president and general manager.

M. L. Popp, 1844 National Avenue, Milwauee, Wis., is a new Templar dealer and disrict distributer in eastern Wisconsin.

The Creek Motor Sales Co., 215 Wisconsin Street, Milwaukee, has been appointed Commbia Six distributer in Wisconsin and Upper Michigan. The Creek company has reinquished the Elgin Six franchise for the same territory.

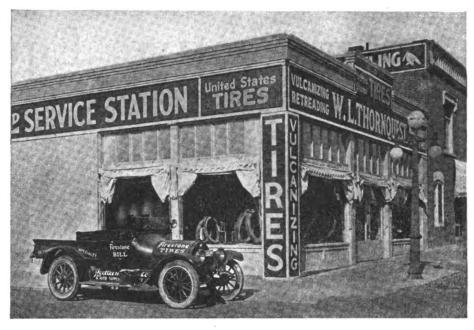
The Olsen & Pauly Auto Co., 239 Wiscondin Street, Milwaukee, Wis., distributer of the Holmes, has incorporated its business without change of style. The capital stock \$25,000. N. A. Olson is general manager.

William F. Streit, Milwaukee, Wis., factory representative of the Highway Trailer Co., Edgerton, Wis., in the Wisconsin territory, as opened a display room and office at 189 Wisconsin Street, Milwaukee, this being the test exclusive trailer salesroom in the State,

M. D. Peterson, Briggsville, Wis., Bulck and Ford dealer, has disposed of his garage and repairshop to Jones & Peppin, formerly of Janesville, Wis. Mr. Peterson will lease part of the building as a display and salesmoom and retain the vulcanizing department.

The Detroit Electric Car Co. of Milwaukee is the style of a new corporation organized to take over the business conducted under the same name for several years. The change is merely one of form. The display room and offices are located at 532 Jefferson Street.

The Waukesha Auto & Machine Co., Waukesha, Wis., has been organized by H. M. Mauer, who has been appointed Liberty dealer in Waukesha County, and will build a garage, salesroom and service station on Main Street, costing about \$15,000.



W. L. Thornquest, accessory and tire dealer, Redlands, Cal., believes in signs. The photographs show the exterior of the new premises he recently moved into at Fourth and Citrus Aves. Inside are 4800 square feet of floor space and all the latest and modern vulcanizing equipment, and a hydraulic press for solid tire service. In 1915 he occupied a small store, 20 x 20, and was doing a business of about \$500 a year In 1919 indications point to a business of \$50,000

The Wauwatosa Tire Co., Wauwatosa, suburb of Milwaukee, has been organized by Edwin Netz of Milwaukee and opened a tire store and repairshop on State Street.

William Schwartzberger and Fred Schlappman, North Milwaukee, Wis., have been appointed Oldsmobile dealers and opened a sales and service station in the former Ernest Dahlke blacksmith shop.

The Keyt-Herrington-Price Automobile Co., Rockford, Ill., has leased the Main Garage on North Main Street, operated of late by L. J. Theiss. The plant has a floor space of 30,000 sq. ft. It will be remodeled in order to provide salesrooms and additional office space. The company will do a general garage and storage business in addition to handling lines of passenger cars, trucks and tractors.

A. Augspurger and George E. Rauscher, both of Saybrook, Ill., have formed a partnership and will be distributer of the Parrett tractor in the McLean County territory.

James L. Elliott and Ray K. Van Brunt have formed a partnership and organized a company to be known as the Elliot-Van Brunt, Inc., to be located at 414 Jefferson Street, Springfield, Ill. The new firm has been given the Overland agency for the Sangamon County territory and will also distribute the same car in the Scott, Menard and Cass County territory. The two principals handled the Overland car for a number of years in the South Dakota territory.

Raiph R. Lord and Roy A. Wentz, Springfield, Ill., have formed a partnership and opened a garage and sales agency at 213-215 Adams Street. The firm will distribute the Oakland car.

The Automotive Sales Corp., Springfield, Ill., has incorporated with capital of \$4,000. The incorporators are I. M. Wynstone, M. E. Eckstein and Frank Oppleman. The concern will make a specialty of motor vehicle supplies and accessories.

The Lyon Tire Co., Springfield, Ill., has opened a tire and accessory store at the corner of Fourth and Monroe streets. A retail and wholesale business will be carried on. The firm will have 23 central Illinois counties for their territory in distributing the leading makes of tires.

William Mullen and Herman Nelson, Aurora, Ill., have formed a partnership and opened the Aurora Home Garage at 54 South River Street. The building is to be remodeled. The firm will do a repair and storage business.

EAST

The Taylor Motor Sales Co., Wilmington. Del., which has conducted a service station, agency, supply house, etc., for a long time at Fifth and Orange streets, has bought the entire business, stock and equipment of the Thermo Welding Works at 413-17 Orange Street, to which location the concern will move, adding the new business to the old The company is the local distributor for the Haynes car.

The Porter-Merrick Motor Co., Wilmington, Del., local distributer for the Peerless, Marmon and Hup cars, have leased a new fireproof building at Tenth and French streets, where they will locate their sales and service station, moving from Pennsylvania Avenue and Clayton Street.

Charles E. Reiss has undertaken the New York City representation of the Columbia Six.

The Oakland Motor Car Co. will open its New York branch July 1 at 1760 Broadway in the old Peerless Building.

NORTHWEST

E. C. Bayliss, Rockwell, Iowa, former proprietor of the Johnson Garage, has moved to Hampton and taken the agency for the Happy Farmer Tractor.

The Independent Motor Truck Co., Davenport, has filed amended articles of incorporation increasing its stock to \$150,000.

The Kanawha Auto Co., Kanawha, Iowa. has been incorporated by Oscar C. Thompson and Ray Watkins. The capital stock is \$25.000.

Frank Kreamer, Exira, Iowa, has secured the Ford agency at Sioux Rapids, Iowa.

The A. G. Schultz Motor Truck Co., Davenport, has changed its name to the Schultz Motor Co.

A. L. Bradley, Waterloo, Iowa, has built a \$25,000 building to house his motor car business.



Water Still

Sterling Polarity

Indicator

Automotive Equipment

unnumuran paman kalan kala

G. E. LEAD BURNING TRANSFORMER

This is a complete outfit for burning straps on posts of storage batteries using electric current. The design is based on the arc welding process. transformer consists of a small unit wound for connection to a 110 volt 60 cycle lighting circuit and with a low voltage unit of limited short circuit capacity. One of the cables has a clamp for grounding to the battery plate and the other terminal has a carbon fixed in a suitable holder with a wooden handle. The current consumption runs between 500 and 600 watts. The entire equipment weighs 25 lbs. Price \$35.—General Electric Co., Schenectady, N. Y.

McCOY AUTO LOCK

This lock is fitted to the gear shift lever and when the key is turned a plunger locks the lever in neutral. When applied, the device is just at the base of the lever and just above the floor level. Can be put on the car in less than a half hour without the use of any special tools. Price \$10.—McCoy Auto Lock Co., 48 Dunn Building, Buffalo.

JEFFRIS SECTIONAL PRESSED STEEL CLOSET

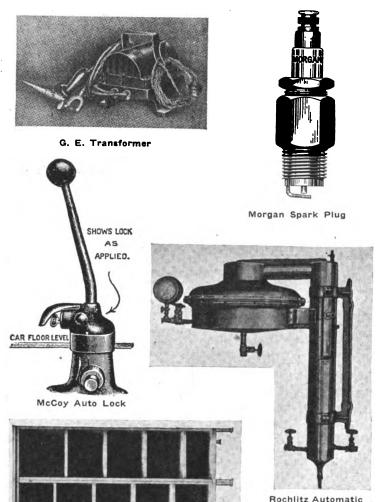
These are pressed steel closets of unit type, any number of units being placed side by side to form a set of bins or shelves. The shelves can be moved up or down to make compartments of a number of different sizes. Made in a wide variety of shapes and sizes either with or without backs. Finished in olive green baked-on enamel. Shipped knocked down and crated.—Richard W. Jeffris Co., Camden. N. J.

BLUE SEAL SOLDERING PASTE

This is a soldering paste for cleaning metallic surfaces preparatory to soldering. Packed in cylindrical cans with friction covers. Price 15 cents each.—Blue Seal Chemical Co., 15 Chestnut Street, Roselle Park, N. J.

GATES VULCO-CORD BELT

This is a fan belt built up of a number of plies in such a way that when the plies are cemented together the belt naturally fits the curve of the pulley. There are ten plies used



Jeffris Sectional Pressed Steel Closet



Onan Spring Spreading Tool

in the process and when the belt is in use all plies sustain the strain equally. Made in five sizes, ½, ¾, 1, 1½, 1½ in. widths. Made either endless in various lengths, or in rolls of 50 or 100 ft. Prices range from \$26.25 per 100 ft. upward.—Gates Rubber Co., Col.

MORGAN SPARK PLUG FOR FORDS

This is a spark plug for Fords. The body, shell and bushing are of cold drawn steel. The insulator is porcelain and electrodes of heat resisting metal. Price 75 cents and \$1 each.—Morgan Mfg. Co., Inc., Keene, N. H.

ROCHLITZ AUTOMATIC WATER STILL

This is a device for making distilled water for filling storage batteries. It may be operated by gas, gasoline or electricity. The water is turned into steam by the heat and then condensed—the rate being from ½ to 15 gal. per hour, depending upon the size of the outfit. Prices range from \$30 to \$300.—W. M. Lalor Co., Manhattan Building. Chicago.

STERLING POLARITY INDICATOR

This is an indicator for testing individual storage battery cells to find out which is the positive and which the negative pole. The long terminals which are 3 in. apart at the extremities can be adjusted to fit all cell terminals by bending them. The indicator hand will point to either plus or minus, depending upon the way the instrument is connected up to the batteries. The diameter of the case is 2½ in. and the price \$4.50.—Sterling Manufacturing Co., 321 Frankfort Avenue, Cleveland.

ONAN SPRING SPREADING TOOL

This is a tool for spreading the leaves of springs apart for facility in lubricating. The head of the device consists of a C-clamp, in the front end of which is a movable plunger operated by the handle at the other end. Pulling the movable handle toward the stationary handle drives the plunger in thus forcing the spring apart. Price \$6 in black, \$6.50 polished.—David W. Onan, Minneapolis.



News Letters From Trade Centers

The Week in NEW YORK

NEW YORK, July 2-Curtailed production in the great passenger automobile manufacturing centers has had a depressing effect upon the sales situation in the metropolis, where a market loudly calling, "more cars," has cleaned out the display rooms, not only of stock machines, but of virtually all demonstration vehicles. Block after block along "the row," from Columbus Circle north and south along Broadway and vicinity streets, reveals empty display windows, fully half the branches and agencies being without a single car on the floor, while others, with accommodations for five to thirty or more, have only one or two models to show customers.

Hardly a dealer is to be found who is not five or ten cars behind on orders, and many of the larger establishments are seventy-five to a hundred cars short of signed demands, with the result that refunds of deposits are a daily occurrence.

The New York dealers take little stock in reports from the West that Eastern agencies are being favored over the Pacific Coast, in concession to the short season as compared with that west of the Rockies, declaring that the car shortage here is demoralizing in a high degree.

Truck dealers are faring better. Many of them report a supply practically equal to the demand, which is decidedly brisk, with firms by the hundreds in the metropolitan district supplanting horse delivery and haulage with the motor variety.

Along with the scarcity of cars, the passenger vehicle dealers report a marked trend of buyers toward the closed body. Conceding a natural tendency toward this style for town use, they term the change one affecting all classes of buyers and indicating a general movement away from the collapsible top.

The retail section, in which rentals have soared with the rapidly growing demand for floor space, is to be provided with a centrally located office structure through raising of the Hearst building from two to eight stories. Contracts have been let for the improvement, which was contemplated when the present flatiron shaped building was erected facing the northern arc of Columbus Circle. It is said that dealers in cars and kindred lines of trade already are negotiating to take practically the entire new floor space. The present structure houses almost exclusively automobile tire and accessory stores.

The Automobile Dealers' Association, which has become a popular noonday gathering place through improvement of its luncheon service, is growing under the membership arrangement instituted with the advent of Harry T. Gardner, the new secretary. At the July meeting membership applications representing more than \$2,000 worth of fees are to be presented, the prospects coming from allied businesses as well as the automobile trade under the new plan.

George S. Morrow, 1761 Broadway, has taken over distribution in this territory of the Templar car. C. P. Forbes, who has joined the Morrow forces, has been named wholesale manager for the Templar and Saxon.

Henry W. Gaston, president of the Lexington Motor Co. of New York, has been elected president of the League for Motorists' Protection, recently organized under the patronage of Secretary of State Hugo to curb speeding and reckless driving.

The Week in OMAHA

OMAHA, NEB., June 28—Truck sales in this territory boomed last week. So did business in passenger cars. Likewise airplanes. There was a reason, and a big one, for each phase of the week's progress in automotive trades. The record of the Nebraska Oldsmobile Co. is a concrete instance of the result. This Omaha firm from June 1-25 sold 61 trucks. "Dick" Stewart, who sells the Pierce, says that a 20 per cent raise in price has no terrors for his clientele, present or prospective. Lee Huff hopes only that he'll be able to get enough G.M.C.'s to supply the demand.

The people of Douglas county voted \$3,000,000 for federal aid road development. At the same time Iowa counties passed similar projects.

The Toozer-Gerspacher Co. went over to Des Moines about May 15 and set up a Dort distributing agency where four men had failed before them. They sent a full sales and office staff, fully experienced in the Omaha branch, and shot three men out into territory covering three-fourths of Iowa. To-day they have 32 dealers in that territory.

As to airplanes, Omaha and Nebraska men are jumping right into this phase of motor interest. There is one factory in Omaha and another in Lincoln. The Omaha Flying Club has been formed, a field has been engaged, flights in various Nebraska cities are daily affairs, both as exhibitions and as taxi-plane projects.

The Week in LOS ANGELES

LOS ANGELES, June 28—Last Saturday was Rickenbacker day in Los Angeles and the whole city turned out to do homage to the American "ace." Rickenbacker claims Los Angeles as his home. Following a parade, in which the Los Angeles Motor Car Dealers' Association had more than 100 machines to carry wounded service men, there was an immense outpouring at the baseball park, where the reception continued.

The car shortage here is getting worse instead of better. Dealers who have gone to the factories and insisted upon being supplied with cars are being politely but firmly told they are getting all the cars that are available for them. The usual excuse on the part of the factory is, it is said, that eastern business must be given the preference right now because of the short selling season. Ì'n California there is a demand for cars the year round and manufacturers appear disposed to take advantage of that fact. While acknowledging the truth in such a claim, dealers here say the summer demand always is much greater than in the fall and that when, later in the year, the demand here slacks off the factories will be trying to force more cars than are wanted into the dealers' hands because of lack of demand elsewhere.

The Western Motor Co., which has been doing business in San Francisco, has entered the local field as distributer for the Kissel line of passenger cars and trucks.

The Irving Motor Car Co., distributer for the Cole and Elgin, has retired from business. Other interests required the attention of James L. Irving, president and general manager of the company.

Harold L. Arnold, distributer for Hudson, Essex, Maxwell and Republic trucks, has taken on representation for the Columbia battery.

Chevrolet owners participate in the annual outing and picnic under the direction of the local Chevrolet branch at the beach to-morrow.

Ground has been broken for a new home for the Albertson Motor Car Co., Dodge dealer.

The Rubber Products Co., manufacturer of Stronghold tires, is seeking representation here.

The Automobile Club of Southern California has supplied the city with 500 "Keep to the Right" standards for use at street intersections.

The club is completing a large addition to its home also.

Digitized by GOGIE

The Week in MILWAUKEE

MILWAUKEE, June 30—Hopes are expressed by Milwaukee distributers and dealers that to-day will mark the end of the worst half year in respect to inadequacy of passenger car deliveries that they have yet experienced, barring not even the height of the war period. There is not the slightest let-up in demand; in fact, purchasers are crowding dealers more and more, and it is safe to say that no local dealer must trouble his mind about an outlet for all the cars he can get until Jan. 1, 1920.

Members of the Milwaukee Automobile Dealers', Inc., forgot all about business and the short supply of cars for three whole days last week. Between fifty and sixty dealers and guests made a 50-mile run to Lake Geneva, Wis., a famous summer resort, and enjoyed a real, old-fashioned frolic. The party left Tuesday afternoon and returned late Thursday night. The affair was intended as a relief from the strain of two years of wartime business cares and was timed so that the prospective "drouth" would be ahead instead of behind it.

The brisk tone which has returned to the iron, steel and machinery industry, which is Milwaukee's biggest asset, is encouraging not only to motor tradesmen, but to all people. Business has revived remarkably well during the last few weeks and every one expects to see some big things from now on. In the time when the spirit of the general metal-working industry was drooping, the automotive industry never lagged and really was the one big source of business. Now other lines are experiencing a decided revival.

The Nash Motors Co., Kenosha, Wis., awarded contracts last week for the construction of a one-story manufacturing building, 100 x 200 ft., which will cost about \$75,000 with equipment.

The proposal of the U. S. Railroad

The proposal of the U. S. Railroad Administration to advance freight rates on Illinois and Indiana coal 30 cents a ton has raised a storm of protest among Milwaukee industries, which use this fuel extensively. The A. O. Smith Corp., pressed steel frames, forgings, etc., use this coal exclusively for its big works. The Harley-Davidson Motor Co. is another.

Additions costing \$400,000 to \$500,000 will be built by the Briggs & Stratton Co., 1047 Louis Ave. The Briggs & Stratton Co. manufactures automotive electrical equipment and accessories and has taken over the motor-wheel department of the A. O. Smith Corp., which it intends to develop in anticipation of a revival in bicycling.

The Lotex Tire Co., Fond du Lac, Wis., a new \$100,000 corporation, will award contracts within a week or ten days for its new factory, to cost \$45,000. The main shop will be 45×200 feet, with a wing 60×80 feet.

The Vim Tractor Co., which recently took over the Standard Machinery Co., Schleisin-

gerville, Wis., is planning to enlarge the gas engine works at a cost of \$30,000 to provide facilities for building complete tractors. Charles Storck is president.

The U. S. Tractor Co., which recently moved from Chicago to Menasha, Wis., has started assembling operations in a part of its new plant, which will be completed by July 10.

The J. F. Weber Co. has been incorporated with a capital stock of \$40,000 to take over the business conducted as J. F. Weber's Garage, 684-688 Seventy-third Avenue, West Allis. John F. Weber remains principal owner and active manager.

The Modern Motor Co., Milwaukee, a partnership between George H. Ruggabber and Fred B. Wutschell, has been dissolved. Ruggabber takes over the business at 490-492 Twelfth Street, continuing it as the Modern Motor Co. Wutschel will conduct the garage at 2431-2435 State Street under the name of Modern Auto Repairing.

Earl Brickson, Nash dealer at Stoughton, Wis., has leased the Loverud building as a display room and service station. This has been used by Thomas Oscar & Sons, Ford dealers, who are moving into a new \$20,000 garage and service building.

The Hokanson-Buick Co., Madison, Wis., is rebuilding the entire front of its large garage and repairshop to provide expansive plate glass display windows of the latest type.

John Ter Maat, Plymouth, Wis., has purchased the Odd Fellows Block for \$10,000 and will rebuild it as a garage, display and sales room and service station. Mr. Ter Maat is Chevrolet dealer and has now been appointed Samson tractor dealer.

The Week in ST. LOUIS

ST. LOUIS, MO., June 28—The demand for motor trucks, which took a sudden spurt early in June, continues steadily to improve. Dealers report a gratifying volume of sales and excellent prospects for the future. The recent motor truck tour has been a big help in creating greater confidence in motor transportation, and has been quite a stimulant to trade. Truck dealers are planning another tour, which probably will be made during the Missouri State Fair at Sedalia, with a stop there of a day or so.

The first week of the used car display of the Newell Motor Car Co. in the Coliseum resulted in the sale of five cars, at an average price of \$1,200. The display is in charge of Hugh H. Shields, manager of the used car department. The show will continue another week.

The motor car class of the David Ranken, Jr., School of Mechanical Trades visited the plant of the Traffic Motor Truck Corp. yesterday afternoon for an inspection tour. The class was in charge of George L. Gaston, instructor.

Nearly all the members of the St. Louis Automobile Dealers' and Manufacturers' Association and Motor Accessory Trade Association have agreed to close their establishments July 4 and 5, so as to provide a 3-day holiday for their employees.

Committees for 1919-20 have been appointed by P. H. Brockman, president of the St. Louis Automobile Manufacturers' and Dealers' Association as follows:

Legislative: J. T. Salisbury, chairman, More Automobile Co.; Frank Tate, Tate-Gillham Motor Car Co.; W. Colburn, Dorris Motor Car Co.

Hospitality and entertainment: Joseph A. Schlecht, chairman, Mound City Buggy and Auto Co.; F. W. A. Vesper, Vesper-Buick Automobile Co.; G. W. D. Donnelly, Supreme Motor Co.

Membership: H. G. Hurd, chairman; Henry Rottersman, Rottersman Auto Co.; L. H. Amrine, Scudder Motor Truck Co.

Used Car: George Weber, chairman, Weber Implement and Auto Co.; James E. Newell Newell Motor Car Co.; J. D. Perry Lewis Lewis Automobile Co.

The Standard Auto Service Co., the Buick service station in St. Louis, has added a togand seat cover shop.

Harry G. Moock, business manager of the National Automobile Dealers' Association will spend the Fourth of July in Denver, and before returning to St. Louis he will visit State associations in Iowa and Kansas.

L. G. Schubert has sold his interest in Von Arx Automobile Co., Winton distributer, to his partner, Victor A. Von Arx. Schubert has been with the company since 1903 His plans for the future are undetermined

The Methudy Tire & Rubber Co. has been appointed agent for St. Louis and vicinity for the Oldfield tire. The accessory department of the Grand-Leader, a department store, has taken the agency for the Ehman track-tread cord tire.

Reginald Reed will cover eastern Missouri and J. A. Garrison will cover southern Illinois for the St. Louis branch of the Firestone Tire & Rubber Co. They are recent additions to the truck tire sales force.

R. J. Pecher has been made manager of the St. Louis branch of the Times Square Auto Supply Co. Before entering service he was manager of the Tierney Auto Supply Co.

J. W. Porteous has rejoined the sales force of the Park Automobile Co., after a year's service with the Motor Transport Corpa. He will devote his time to the sale of Peerless cars.

G. G. Glese has returned to his former position as secretary and treasurer of the Panama Rubber & Equipment Co., after service with the Quartermaster's Department at Camp Merritt, N. J.

J. G. Drexler, formerly connected with the Overland Automobile Co., and with the accessory department of the Simmons Hardware Co., has joined the sales force of the Edwards Sales Co., distributer of the Johnson motor car lock. He will cover the Southern States.

The Week in PHILADELPHIA

PHILADELPHIA, June 28—The Philadelphia distributing agency for the Sterling motor truck has been changed to a direct factory branch, under the management of H. O. Staehling, who formerly was service manager in the Sterling factory at Milwaukee. The new management is changing the service station from Germantown to 857 North Broad Street, which has been remodeled for the pur-



Speaking of Yesterdays-

In 1899 automobiles were excluded from the public parks of Boston from 10.30 in the morning until 9 o'clock in the evening.

The United States army made its first experiments with armored motor cars in the summer of 1899.

The first automobile insurance company in this country was started in New York City. This was in 1899.

The first automobile club was started in Chicago in 1895.

The first public garage of record, where motor cars could be stored, repaired or rented, was opened in Boston, Mass., early in the spring of 1899.

In 1900, there were fifty automobiles owned and operated in San Francisco, Cal.

In April, 1900, a large automobile company announced that they were manufacturing automobiles at the rate of almost two ω day.

The late William McKinley had the distinction of being the first President of the United States to use an automobile.

On March 17, 1900, eighty persons had been licensed to drive automobiles in Chicago, including one woman, who was the first of her sex to secure a license to drive a motor vehicle in that city.

In the early days a chauffeur was called a conductor.—Chevrolet Review.

pose. The Philadelphia branch includes eastern Pennsylvania and New Jersey. Heavy-duty trucks, from 2½- to 7-ton capacity, are carried. The Philadelphia branch is also headquarters for the factory district representative, H. F. Staehling, brother of H. O. Staehling.

The Rowe Motor Co. has appointed E. A. Holmes, who has been in charge of its local service station for the last four years, eastern sales manager, and J. Milton Zimmerman will assume charge of the Philadelphia branch.

Maxwell-Chalmers Sales Corp., 250-254 North Broad Street, has purchased the 5-story concrete building at 216-218 North Broad Street which for the last eeven years has been occupied by the White Co. According to S. F. Levy, secretary of the Maxwell-Chalmers Sales Corp., the concern will not move into its sew quarters until about the middle of December. The White Co. at that time will take up its quarters in its new building, which includes a service station, at 20th Street and Erie Avenue. As recently announced, the present Maxwell building has been sold to the Pressman Tire 60., of North Broad and Vine Streets. The White Co. building just purchased has a frontage of 53 ft. and a depth of 200 ft. The territory of Maxwell-Chalmers Sales Corp. extends in Pennsylvania beyond Harrisburg, takes in all of the Delmar peninsula and southern New Jersey and includes more than 10 dealers and 125 men.

The Advance Motor Sales Co. has opened for business at 514-516 North Broad Street, as distri' uter for the Elgin Six for eastern Pennsylvania, southern New Jersey, including Mercer County and Trenton, and New Castle County, Delaware. D. E. Hunt is sales manager and Martin C. Chaundry is district territory manager.

The William M. Moore Co., Inc., 1356-1360 Girard Avenue, has taken over the distribution, in Philadelphia and surrounding territory, of the General tire, manufactured by the General Tire & Rubber Co., Akron, O. The officers of the new organization are: President, William M. Moore; secretary-treasurer, J. R. Balts. Mr. Baltz will direct the management of the concern.

The Peerless Starter Sales Co., a branch of a concern which already has opened 15 salesrooms in the United States, has opened here at 1803 Market Street and is introducing a new starter for Ford cars. J. D. Coughlin is sales manager. The company's territory takes in Pennsylvania, New Jersey and Maryland.

In order to give its employees a vacation of one week, with pay, the Autocar Co. to-day at noon shut down its plant in Ardmore until Monday morning, July 7.

United Motors Service, Inc., has opened a Philadelphia branch at 242-248 North Broad Street, where direct factory service will be furnished on Delco, Klaxon and Remy electrical equipments. The branch carries complete stocks of parts. The general offices of the concern are in Detroit,

Resume Yearly Get-Together

The Bigelow-Willey Motor Co., 304 North Broad Street, Paige distributers, this week resumed its yearly "get-together" function, which had been suspended since the outbreak of the war. Officials of the company and the sales force went to Blue Bell Inn at Ambler and celebrated with a Victory dinner. There were ball games and other recreation.

One hundred and forty members of the Philadelphia Garage Association and their friends enjoyed the organization's second annual "Sociability Run." The automobile tour took the party to Mount Penn, just outside of Reading, Pa., on Tuesday morning. There was a prize dash of 34 cars from Northeast Boulevard and North Broad Street to the Mount Penn Hotel, the cars starting at 8 o'clock. The run was made in 3 hr. 38 min. by the winners, resulting in a triple tie. of J. W. Nock, Warren Miller and George G. Blind, the latter being the association's president.

Thirty cars, valued at \$40,000, were destroyed by fire in the garage of Harry Odenathe, 5154-5160 Thompson Street. The cars included a \$7,000 ambulance and seven touring cars. Additional damage of \$10,000 was done to the building.

The Atlantic Refining Co. is building a service structure to cost \$12,000, at Girard and Germantown avenues.

Beer labeled "Automobile Oil" is being sold freely throughout Pennsylvania, including Philadelphia and Harrisburg. Garage owners are indignant at illicit liquor dealers trying to thrust this extra burden on them. Deputy United States Marshal Smith at Harrisburg has just confiscated 14 cases of beer labeled "Automobile Oil," also bearing the request that the purchaser dispose of it before July 1.

William D. Wilson will build a brick garage, to cost \$15,000, at Sixty-third and Vine streets.

The Week in NEW ORLEANS

NEW ORLEANS, La., June 28—Work on highway improvement which will give truck service of the widest extent and aid in bringing foodstuffs to the cities and towns at a much lower rate has been started in Louisiana.

Avoyelle's parish was the leader for the week. It voted \$1,500,000 in bonds with which to construct every link of its trans-state highways across the parish, with laterals to the heart of every farming section. This parish has more small farms than any other in the state, and more auto trucks are in operation in it than in any other Louisiana parish except Orleans. The bonds were sold at a premium of \$69,000, so confident were the banks that the project will be a complete success.

The Opelousos-Washington ward of St Landry parish lifted that division of the state into the million dollar class of goodroad builders by voting almost unanimously a \$500,000 bond issue. With the various sums previously voted for the same purpose, the parish expenditure for improved highways will run about \$1,200,000.

The third ward of Lafeyette parish decided to call an election to vote on a \$75,000 bond issue for highway improvements. The district already has \$25,000 available, and the city of Lafayette has agreed to add \$30,000 to this, while federal aid offered will bring the total to approximately \$260,000. With that sum, properly expended, it is estimated that every farmer in the parish can be put within one mile of an improved highway.

Expends \$2,000,000 on Roads

Calcaiseu parish has just completed the expenditure of more than \$2,000,000 on its road system. Wards 1 and 8 will vote July 29 on a bond issue of \$110,000 to build 12½ miles of graveled roads to fill in gaps in the highway system.

The Motor Transport Association utilized the Flag Day half holiday to stage a truck parade in furtherance of the Ship-by-Truck movement. More than 100 vehicles engaged in the freight haulage business were in line.

The Pasadena Motor Car Dealers' Association held an outing at Catalina Island June 14 and 15.

A movement has been started to observe Saturday as a half-holiday and close all motor car sales and service departments during the afternoon. A number of the dealers have declared in favor of it. The proposition will be discussed at the next meeting of the dealers' association. It is not likely that the truck dealers will be asked to close, as truck service hardly could be dispensed with even for the half-holiday

The Security Motors Co. entertained the representataives of the automobile departments of the local newspapers at Catalina, June 14.

CHANGES in the Trade

Raymond Hawley is no longer connected with the Hudson Motor Specialties Co., Philadelphia.

C. H. Mead will be in charge of the Kelly-Springfield Tire Co. branch soon to be opened in Portland, Ore. He was formerly manager of the Stewart Products Service station in Portland. A 1½-story brick building will be erected in Park Street for the new branch.

Edwin H. Loewus, formerly of the Concourse Auto Sales Co., has returned from duty as lieutenant in France, and is connected with the Elsey Motor Co., agents for Chandler cars, Bronx, N. Y.

H. H. McCliskey has been appointed second assistant treasurer of the Goodyear Tire & Rubber Co., Akron.

Coxie E. Cook, who has been with the B. F. Goodrich Rubber Co. for 21 years, has been placed in charge of the mechanical rubber goods sales of the company. He was previously in charge of the company's Pacific Coast office at San Francisco and more recently has been in the Akron plant in connection with branch operating work.

Richard A. Ogiesby has recently become identified with the sales organization of the Eisemann Magneto Co. He was chief engineer of the Quick Action Ignition Co. until he entered government service as first lieutenant in the Ordnance Department. He was president of the National Gas Engine Association from 1914 to 1916.

Elliot Reid, formerly assistant to the general manager of the Westinghouse Lamp Co., has been made sales manager of the company.

J. Gustaf V. Lang, manager of the export department of the Master Trucks, Inc., Chicago, will leave New York on July 8 for a business trip to Scandinavia,

Thomas O'Brien, New York City, is now in charge of the truck sales department of the Olds Motor Works, Lansing. He succeeds A. L. A. Spetler, who has gone to Minneapolis to become general manager of the Northwestern Oldsmobile Co., distributer in that territory.

George B. Hopkins, Kalamazoo, Mich., formerly with the Victor Wire Wheel Co. of that city, has been made assistant to A. C. Barley, president of the Barley Motor Car Co.

- C. D. Pettingell has resigned as purchasing agent and sales manager of the G. Norman Baughman Co., Tampa, Fla., and will take up the sale of International motor trucks in northern Florida, in partnership with A. L. Riddle.
- B. C. Osborne, formerly sales manager of the Fulton Motor Truck Co., Philadelphia, has become associated with the Baker Motor Sales Co., Inc., distributers of Selden trucks, at Cambridge, Mass.
- J. F. Mackay, formerly business manager of the Toronto Globe and, until lately, treasurer of the Russell Motor Car Co., has been appointed secretary-treasurer of Willys-Overland, Limited, West Toronto.
- S. W. Rolph has been appointed retail sales manager, C. P. Lord, assistant retail sales manager, and E. W. Fend manager of the service station department of the Willard Storage Battery Co., Cleveland.
- J. L. Justice, for three years connected with the Maxwell Motor Corp. as zone super-

visor, has resigned to become general sales manager for the national wire wheel works, Geneva, N. Y. He will have general offices in Detroit.

Carl H. Peiton, assistant to the president of the Maxwell Motor Co., Inc., and secretary of the Maxwell Motor Sales Corp., has resigned to take effect July 1.

Thomas A. Cain of the Reo Motor Sales Co., Toronto, Ont., distributer of Reo cars and trucks, and Duplex four-wheel drive trucks, has recently returned from Michigan, having contracted for distribution of Jumbo trucks for Ontario.

Edward Finley, for nine years sales manager of the Fairchild Auto Co., New Orleans, has returned to that position after service overseas with the headquarters company of the Eighth Army Corps.

Cecii B. Warner has been appointed chief engineer of the Nelson Motor Truck Co., Saginaw, Mich. For the past five years he has been connected with the engineering staff of the Gramm-Bernstein Motor Truck Co., Lima, and was formerly with the Warner Gear Co., Muncie, Ind., and with the Willys-Overland Co., Toledo.

Hector C. Adam, for five years in the sales department of the International Motor Co., and formerly truck sales manager of the Packard Motor Car Co., has become one of the directors of Morris, Russell & Co., Inc., New York, exporters of automotive products. He has just returned from Paris and London.

W. E. Schroen, formerly connected with the Kansas City branch of the Federal Rubber Co., has been placed in charge of that company's warehouse, recently opened in Omaha. Nob.

R. Jackson Jones has been appointed district sales supervisor of the Traffic Motor Truck Corp., St. Louis. He returned recently from 15 months' service with the Canadian army in the British West Indies.

Baltimore Dealers to Have "Club"

BALTIMORE, June 27—The Baltimore Automobile Dealers' Association, Inc., has moved into its new headquarters at 1228 North Charles Street, and is negotiating for a property in which to establish permanent headquarters. In addition to executive offices the building will house a grill, billiard and lounging room, in fact, a dealers' club.

Hackett Production Increased

GRAND RAPIDS, MICH., June 27—The Hackett Motor Car Co. is producing 12 cars a week. The company will bring out a new series of open and closed models this fall. At present 50 men are employed. Officials say production will reach capacity in about 60 days. The company is located in its new 500 x 70 ft. plant.

Hudson Gets Tractor Patent

DETROIT, June 26—The Hudson Motor Car Co. has obtained the patent rights on a farm tractor which has been invented by Stuart G. Baits and Stephen Ivan Fekete. The serial number of the patent is 233,077.

Ahlberg Pittsburgh Branch

CHICAGO, June 27—A new branch of the Ahlberg Bearing Co. has recently been opened in Pittsburgh.

AIRPLANES SELLING FAST IN DETROIT

Four in First Day Record of Detroit Showrooms—Some Purchases for Pleasure

DETROIT, June 27—A big canvass sign, "Airplanes for Immediate Delivery," went up over the Thompson Auto Co. salesrooms on Woodward Avenue last week and heralded the advent of the air car in Detroit's automobile row. Four machines, at \$3,000 each, were sold the first day.

Thompson, Maxwell-Chalmers distributer, has purchased twenty Curtiss machines from the United Aircraft Corp. of New York, and is selling them to Detroiters faster than they can be delivered. His salesroom has been cleared of cars and a plane assembled there.

The airplanes were used in Canadian training camps and contain Curtiss X-5 engines. Captain L. J. Robinson, formerly of the United States Army Air Service, and sales manager of the airplane department of the Thompson company, is teaching purchasers how to fly in 10 hr. at Marrow Field, on the outskirts of Detroit. The machines are being purchased for pleasure flying as well as for commercial use.

Thresher for Fordson

PORT HURON, MICH., June 27—The Port Huron Engine & Thresher Co. has placed on the market a small threshing machine, designed to operate in connection with the Fordson tractor. The thresher is being handled throughout the country by Fordson tractor dealers. The little machine stands not much higher than a man's head and was given a trial at the Henry Ford farm at Dearborn.

Lansing Production Catching Up

LANSING MICH., June 26—Passenger car and truck production last month was 50 per cent ahead of May, 1918. By the end of July it is believed that the Olds, Reo, Duplex and others will have 100 per cent peace time output. The body companies are now on a 100 per cent basis.

Zone System for Traffic Truck

ST. LOUIS, June 30—The Traffic Motor Truck Corp. has divided the country into four zones, with the following district supervisors: F. S. Davis, R. H. Ferguson, R. Jackson Jones and R. Harbison. C. R. Hunter of St. Louis, C. A. Oppliger, former truck dealer of Pine Bluff, Ark., B. P. Haynie, former truck salesman in South America, and H. D. Schlinck and K. O. Rieger of St. Louis, have been added to the sales force. John B. Page, for many years with the United States Truck Co., Cincinnati, has been named manager of the export department.



Milwaukee Dealers Take 3 Days for Play



Represented at the outing of dealers and distributers of the Wisconsin territory at their annual picnic at Lake Geneva were: Jesse A. Smith, president, Milwaukee Dealers' Association and Wisconsin distributer of Hudson and Essex cars; Ray Shidester, manager, Packard Motor Car., Co., Milwaukee Branch; Frank J. Edwards, Dodge distributer; Rudolf Hokanson, manager, Nash

Sales Co.; N. E. Osmond, Winton and Paige distributer; L. D. Frint, Oldsmobile distributer; F. W. B. Aiken, Reo distributer; William F. Sanger, Franklin distributer; Leer Diel, Dorgkamp Co., Hupmobile dealer; R. D. Rockstad, Lexington and Allen dealer; J. E. Nelson, Haynes distributer; P. H. Van Lare, Patterson distributer; Alfred Reeks, Nash truck and car distributer; George Wil-

liams, N. N. W. attachment; Jack P. Meehan, West Side Buick dealer; C. P. Hatter, East Side Buick dealer; S. N. Cotterman, Magnetic Motors Co.; Neil Olsen, Holmes distributer; F. A. Myers, Sterling truck, J. C. Fowler, Apperson distributer; X. W. H. Kreeger, Cole distributer; H. P. Robinson. Packard truck dealer.

PLAN \$1,700,000,000 FOR FEDERAL ROADS

Osborn Bill Would Make Highway Head Cabinet Officer

WASHINGTON, June 30—Establishment of a Department of Federal Highways and definite trunk-line roads across the United States, together with an appropriation of \$1,700,000,000 for the work, are the chief provisions of a bill introduced in Congress yesterday by Representative Osborn of California.

The measure, which is urged by the Los Angeles Chamber of Commerce, differs to some extent from the Townsend bill, which provides for a Federal Highway Commission. Mr. Osborn's bill definitely states the number of trunk lines to be established, specifically names the officers and their salaries, and increases the appropriation covering seven years from \$450,000,000 to \$1,700,000,000. It also grants the power to appropriate highways anywhere in the United States by condemnation so that the Federal Government will not be dependent upon the individual states for assistance in development of the highways.

The Department of Federal Highways, as proposed, will have a secretary with Cabinet ranking. Not less than three main trunk-line roads from the Atlantic Ocean to the Pacific Ocean, and not less than four main trunk-line roads from the northern to the southern boundary of the United States, are provided for. The

plan includes also not less than two main trunk-line roads in each state, together with intersecting roads connecting the entire national highway system.

An appropriation of \$100,000,000 is advocated immediately, with \$200,000,000 per year for the seven succeeding fiscal years.

The system will not include any highway in a place having a population of 5000 or more except where the houses are more than 200 ft. apart. The construction, maintenance, repair and improvements, together with the selection of these highways, will be the duty of the secretary of the department.

Provision is made so that any lands in the United States may be appropriated as rights of way for the highway, either by contract or condemnation. The Secretary of War is authorized to turn over such equipment as may be necessary for construction and maintenance.

The bill also includes amendments for the Federal Road Aid Act, one of which strikes out the maximum of \$10,000 which is allowed per mile for payment of roads and which would leave the act without a definite maximum sum specified. Bond issues may be made under the provisions each year for the amount of the appropriations.

Silvur Lined Mold Put Out by Haywood

INDIANAPOLIS, June 28—A mold for retreading impaired, reconstructed and rebuilt tires, known as Haywood's Silvur Lined Mold, has been put on the market by the Haywood Tire & Equipment Co.

MARMON TO DOUBLE ITS FACTORY OUTPUT

\$2,500,000 Note Issue to Finance Expansion of Plant

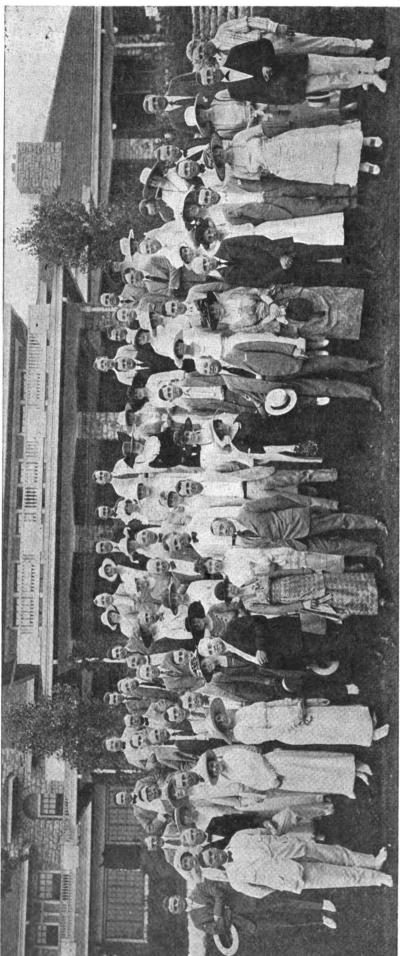
NEW YORK, June 28—An increase in the production of Marmon cars from 100 to 200 will be effected with the completion of additions to the plant of the Nordyke & Marmon Co. at Indianapolis, for which contracts have been let. The company has acquired fourteen acres of land adjoining the original factory property, on which buildings will be erected providing 400,000 additional square feet of floor space.

Outlining his company's plans for expansion, during a call at the local offices to-day, F. E. Moskovics, vice-president, said that notes for \$2,500,000 would be issued shortly by the Bankers' Trust Co. to finance the project. His concern's extensive production of Liberty engines, he added, had suggested an enlarged car making capacity to meet the motor output.

Tractor Demonstration in Canada

OTTAWA, ONT., June 26—A plowing match and tractor and farm machinery demonstrations are to be held on the Central Experimental and Booth Farms, Ottawa, October 14, 15 and 16. A number of tractor firms, it is said, have promised to be present. Prizes are being offered, and tractor competition in plowing will be arranged.

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at Hillcrest Golf Club, near Kansas City, June 25, is a battered specimen, which once was Nelson upper row left center. H. M. Genung hovers near rily intercepts view of Hal Brace, at N. S. Riley's near Kansas City, June partly . and Ed Peake the left. About 1.30 o'clock from Peake Kansas City Motor Car Dealers' Association, Į. a pillar background of Greater Ellwood of Marmon he Good Roads Associ Good Ret. the the First Annual Field Day of ht end o Major Greenlease decorates the right Part of the party at the First An 1919. "Bob" Greenlease decorates i Studebaker Riley—before the golf

KANSAS CITY TRADE TAKES BIG DAY OFF

Everybody Went - with His Wife—to the Hillcrest Golf Club and Was a Boy Again

KANSAS CITY, June 28-The Kansas City Motor Car Dealers' Association is noted for the way the members work together. Perhaps this is because they can play together so happily. They had a picnic three or four years ago. This year, the first annual field day was held June 25, at the Hillcrest Golf Club. It wasn't a full-fledged field day, just a golf tournament, a dinner dance, and an incidental good time. But it was so successful that next year the plans will be elaborated, with other sports, for both the members and their wives.

The wives didn't get in on the fun this time until dinner—and they seemed envious. The golf tournament consisted of five foursomes, each player being handicapped against scratch 95. The dinner party consisted of 140, no handicaps except the general one of the extreme heat of that hottest day so far of

the summer.

The golf tournament displayed remarkable talent. Gridley, handicapped 112 from scratch of 95, made a 103. Riley played scratch, but turned in a 93. The scores of many players were so extraordinary that before the 18 holes were half played it was generally agreed that there must be other sports at the next field day.

Fordson Dealers Meet

COLUMBUS, OHIO, June 28-Reports received by E. H. Bryant, Fordson distributer for seventy-two counties in Ohio, during the sales convention held in Columbus last week, showed that approximately 2500 Fordsons were sold in the Buckeye State during the past 12 months.

A. E. Hildebrand, of Chicago, was one of the speakers at the conference and called attention to the fact that of 180,-000 tractors in use in the United States about 60,040 were Fordsons. Representatives of the Oliver Chilled Plow Works, Roderick Lean Manufacturing Co. and the American Seeding Machine Co., were present, and about 300 dealers.

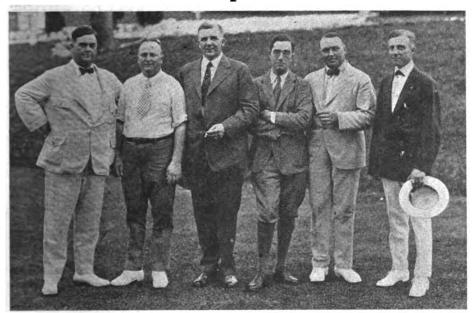
Allweather Top Co. Organized

CLEVELAND, June 80-The Allweather Top Co. has been formed with a capital of \$25,000. The incorporators are Louis A. Luckmeier, W. A. Kane, J. P. Friedl, R. M. Zimmerman, and Eugene Quigley.

Ohio Has 161 Road Projects

COLUMBUS, OHIO, June 30-The Ohio Highway Commission has 161 road improvement projects in all in process of completion. The projects cover practically every county in the state.

Missouri Golf Champions! Look at 'Em!



WINNERS OF GOLF TROPHIES AT KANSAS CITY OUTING-Left to right: E. E. Peake; G. T. O'Maley, Ford agent, winner of bottle of ketchup (booby prize); B. E. Gridley, Peerless and Locomobile, winner of first prize; Nelson Studebaker Riley, Studebaker, winner of second prize; H. M. Genung, Republic, vice-psesident; and R. C. Greenlesse, Cadillac, president of Kansas City Motor Car Dealer's Association.

Bi-State Dealers Organizing

NEW ORLEANS, July 1-More than 500 favorable responses were received to June 25 to the invitations sent to 800 automobile dealers of Louisiana and Mississippi, to attend a convention to form the Bi-State Automobile Dealers' Association, July 10 and 11. Program details have been completed, and a tentative constitution drawn up by A. H. Borden, who is one of the chief movers in the project. According to the program arranged special attention will be paid to good roads legislation, means for increasing the number of automotive vehicles in use and steps to broaden service to the automobile owner. Mayor Martin Behrman will welcome the dealers to the city.

Another Truck Expedition for Missouri

ST. LOUIS, MO., June 28-Plans are being formed by the Commercial Car Bureau of the St. Louis Automobile Manufacturers' and Dealers' Association for another motor truck expedition through Missouri and Illinois, which will probably be through Missouri, with a stop of a day or so at Sedalia, when the Missouri State Fair is on.

At a meeting of the Bureau a committee was appointed to consider the advisability of this tour, their report to be made at the next meeting. This committee is composed of Chairman J. T. Rumble, Dorris Motor Car Co.; L. H. Amrine, Scudder Motor Truck Co.; T. C. Brandle, Traffic Motor Truck Corp., and Capt. Robert E. Lee, secretary.

The meeting was held at the Traffic Motor Truck Corp., the dealers being its guests at luncheon. After luncheon the plant was inspected.

Motor Insurance Company Formed

NEW ORLEANS, June 30-The Automobile Finance & Securities Co., capitalized at \$250,000, has been organized to insure sales on time payments and to finance dealers in making larger purchases of cars. G. O. Vincent, vice-president of the Commercial Bank, is president of the new company, and W. B. Spencer, secretary.

Fight Still On Against Car Tax

ST. LOUIS, June 28-Following advices from Senators and Representatives that there will be a determined fight in Congress against the reduction of classification taxes, Harry G. Moock, business manager of the National Automobile Dealers' Association, has issued a new appeal to dealers to work with renewed energy for the repeal of the war tax on motor cars, repairs and parts.

Dealer Entertains Purchasers

ST. LOUIS, MO., June 30-The Neskov-Mumperow Motor Car Co. was the host yesterday at an outing to owners of Dort and Anderson cars, for which the company is dealer.

Dort Factory Branch in New York

FLINT, MICH., June 20-The Dort Motor Car Co. will soon open a factory branch in New York City to handle its eastern wholesale business. It will have a showroom in the Ehret Building, Fiftyeighth Street and Broadway. F. L. Sanford, for several years manager of the Studebaker New York branch, will be in

DETROITERS DECIDE ON TWO SHOW DATES

Will Hold an Enclosed Car Show in October and the Regular Exposition in March

DETROIT, June 28-The Detroit Automobile Dealers' Association has decided to hold the annual automobile show some time in March. Staging of the exposition in March last year resulted in heavy sales, with the result that the March date is considered superior to January.

With the show in January there is a gap of from 6 to 8 weeks between the time when interest in a car has been awakened in the mind of the prospective buyer and the date when a sale can be made, the dealer thus losing many of his prospects before the time of closing arrives. With the show in March the selling season is just opening and deliveries are possible. Last year, from a sales standpoint, the show was the most successful in the history of the D. A. D. A.

A definite date for the 1920 show was not decided upon. The Crosstown Garage management has agreed to extend its building to the end of Woodward Avenue, adding 25,000 sq. ft. of floor space and giving the exhibitors a better chance of

displaying than last year.

Detroit will hold its first closed car show Oct. 6 to 11. The association will permit the showing only of strictly cl sed cars, all winter tops and makeshifts to give closed bodies being barred. It will be on the "salon" order and will be a semi-invitation affair with the ordinary price of admission doubled. The dealers are getting in direct touch with the factories they represent and are urging them to produce an original and exclusive design of enclosed car especially for the October show. Some are negotiating with designers in New York for special body designs that will reflect the latest in the art of coach architec-

Wilcox and De Palma Meet in Two Races

SHEEPSHEAD BAY SPEEDWAY, N. Y., July 2—Howard Wilcox, who drove a Peugeot of pre-war design to victory in the Indianapolis sweepstakes, has entered his machine in the 100-mile race and a match event of three 10-mile heats with Ralph de Palma, to be run here July 4. De Palma, whose battle with Louis Chevrolet for sixth place was the fighting feature of the Indiana meet, will drive in both contests the big Packard which developed more than 92 m.p.h. May 31, but was forced from the track for adjustments which took it permanently out of the lead.

In the 100-mile event, aside from Wilcox and De Palma, the entries to date are: Joe Thomas, Mercer; Dennis Hickey, Stickle; Emil Thomas, Wehr; Ed O'Donnell, Duesenberg; Tom Milton, Duesenberg; Dave Lesis, Meteor; Ira Vail, Hudson; Joe Boyer, Frontenac.

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LOS ANGELES TO BE FLYING METROPOLIS

Three Commercial Companies Formed—Passenger Line Inaugurated

LOS ANGELES, June 27—Three commercial aviation companies have begun operations here, but as yet no motor vehicle dealer has taken representation for the craft.

Syd Chaplin has organized a company and become the private owner of a large selection of flying craft through negotiations completed by him with the Curtiss Aeroplane & Motor Corp. for the distribution of all of the organization's products in Southern California and Arizona.

Steps have been taken for the incorporation of the Syd Chaplin Aircraft Corp., to be capitalized at \$200,000, naming Chaplin as president and Lieut. Emery Rogers, R. M. A., of Santa Monica, vice-president and general manager.

Two hundred new and used JN4 Curtiss planes, at March Field, bought by the manufacturers from the government, have been placed at the disposal of the Chaplin corporation. These will be put on the market, with the exception of a few that will be used in connection with a chain of flying schools planned by Chaplin for Southern California and Arizona.

The Chaplin organization also will operate the Catalina air line between San Pedro, Long Beach and Santa Catalina Island, 26 miles at sea. Three of the latest type flying boats have been bought for this service. They are of the "Sea Gull" type, known as the M.F. Operation is scheduled to begin early in July.

Overland routes between Los Angeles, Pasadena, Santa Barbara, Riverside and San Diego will be operated. For this service the Curtiss three-passenger Oriole will be used. Government licensed air pilots will be the only ones employed.

As an additional safety measure in connection with the Catalina sea planes there will be two motor speed boats with a maximum speed of 35 miles an hour plying between the coast and Avalon, the Catalina harbor city.

Ship-by-Truck Movement in Oregon

PORTLAND, ORE., June 27—Oregon truck dealers have opened an active campaign, in co-operation with Julius L. Meier, northwest regional chairman for the Highways Transport Committee, and Fred A. Rasch, utilities engineer of the Oregon Public Service Commission, to arouse interest in the ship-by-truck movement. A ship-by-truck parade is to be followed by operation of a demonstration ship-by-truck line, to prove the low costs, reliability and rapid transit of truck freight and express service. A special committee composed of F. B.

Thompson, of the Diamond T Truck Sales Co., C. W. Cornell of the White Co., and E. D. Van Dersal of the Garford agency, has been named to obtain from other states exact costs data on motor truck transportation lines. C. M. Menzies, of the Manley Auto Co., is chairman of the ship-by-truck committee in charge of the general campaign, in co-operation with L. J. Sparks, Oregon manager for the Firestone Tire & Rubber Co.

Thompson Heads Stutz

NEW YORK, June 28—William N. Thompson, treasurer of the Stutz Motor Car Co. of America, and right hand man of Harry C. Stutz for many years, will become general manager of the concern, succeeding W. Stutz, who also will retire, as president, July 1.

George F. Lewis, who became secretary of the Stutz company with the ascendency of Allan A. Ryan, the banker, to the presidency, also was elected secretary of the Stromberg Carbureter Co. of America, of which Ryan is vice-president, at its annual meeting this week. He succeeds Kenneth R. Howard of the Ryan offices, who has been secretary of both companies. The Stromberg company reelected its directors. Officers chosen, in addition to Ryan and Lewis, were: Charles W. Stiger, president; George H. Saylor, treasurer.

France to Buy United States Army Cars

PARIS, June 30—The French Government will purchase from the American Army its entire automotive and kindred equipment in France—7575 passenger cars, 32,300 trucks and 40,000 motorcycles, bicycles and trailers. An inventory made by the Transport Corps in the hands of French officials and if the price arrangements are satisfactory the material will be formally taken over within a week.

The French authorities propose to distribute throughout the country and elsewhere in Europe the vehicles, which the American army is without right to sell in France.

Oakland Branch Opened

NEW YORK, July 1—The new Oakland branch opened here to-day on Upper Broadway, in the heart of automobile row, with Charles M. Brown, formerly Winton branch manager, in charge. Two men from the Oakland organization, G. V. H. Cairns and Alexander Jackson, are on the staff as assistant manager and director of wholesale sales and service manager respectively. W. P. Disbrow, formerly with the Sidney B. Bowman Co., is retail sales manager.

General offices of the branch, which displaces the distribution agency in the metropolis, are on the first floor of the General Motors Building, with the retail store next door. The service department is located for the present in Long Island City.

SUPPLY OF CARS IS 1,000,000 SHORT

Jordan Forecasts Six Months' Shortage and Higher Prices

NEW YORK, July 1—American motor car manufacture is 1,000,000 vehicles behind the demand, in the opinion of Edward S. Jordan. In a statement sent out to Jordan distributers he estimated that one-hundredth of the country's population, ready to accept delivery of automobiles to-day, would have to wait sixty or ninety days.

During the next six months, Jordan believed, immediate orders would be filled, but with the coming of spring the industry would be faced with the greatest demand in its history, both for domestic use and for export. Predicting higher car prices and an unparalleled sales opportunity, he declared that manufacturers, in justice to themselves and to the public, must devote every energy to increasing production.

"In the first quarter of 1919," said Jordan, "115 leading manufacturers produced only 173,000 cars, while in the last complete production year, 1917, there were built and sold 1,800,000 cars.

"There are 27,304,172 family groups in America. Fifteen million people have incomes enabling them to purchase a car selling from \$300 to \$1500. Three million people may be considered prospects for a car from \$700 to \$1,000, 2,000,000 between \$1,100 to \$1,400, and 500,000 between \$1,500 and \$2,000, while 100,000 people can buy anything they want.

"We are just concluding a period in which a tremendous effort has been made by the manufacturers to supply a very small part of the demands made upon dealers. It was entirely out of the question even to begin to supply this demand during the first six months after the war."

Mr. Jordan forecast still higher prices.

Movies Sell Dodges

NEW ORLEANS, June 27—The Fairchild Auto Co., selling Dodge cars, has installed a moving picture outfit to illustrate the capabilities and the uses of the Dodge car to prospective buyers. The small portable movie machine is taken direct to the home or office of the "prospect."

New Accessories Outfit

EL PASO, TEX., July 1—The Tri-State Accessories Corp. to-day took over ownership of the Tri-State Motor Co.'s wholesale accessory department. The purchasing concern, newly organized, is headed by Barry Cool, a veteran from the California field, with J. W. Kirkpatrick of the Tri-State Motor Co. among his associates.



CAR OUTPUT HARD HIT BY STRIKE EPIDEMIC

Michigan and Ohio Production Curtailed 40 Per Cent—Improvement in Sight

DETROIT, June 30—Labor troubles in Michigan and Ohio automotive plants curtailed by fully 40 per cent passenger car production in June. While, with few exceptions, strikes did not hit the automobile plants directly, they occurred in factories of the parts makers, causing a shortage of materials which has become critical. Passenger car manufacturers in the Detroit district cannot secure sufficient material to meet increased production demands and they are going along on curtailed schedule.

This condition is, perhaps, most striking in the case of the Ford Motor Co. The big Ford establishment's production sheet called for the manufacture of 3500 cars daily in June. Although every effort was made to boost production, the highest point reached last month by this company was 3000 cars. This was due directly to a shortage of bodies, of both the open and enclosed type. Strikes at the Wadsworth Mfg. Co.'s plant, maker of the Ford sedan body, and the Wilson Body Co., which makes open bodies for Ford cars, made it impossible for the Ford company to secure sufficient bodies to care for its production.

The Paige-Detroit Motor Car Co. made 1500 cars last month and would have made twice that number if a steady flow of material could have been obtained. The capacity of this plant was 125 cars daily, but present production has been running from sixty to seventy-five cars. Officials say that in every instance where material shortage occurred it was due directly to labor trouble in the plants of the parts makers.

of the parts makers.

Maxwell Plans 400 a Day

The Maxwell-Chalmers Corp. was similarly affected. No direct trouble has occurred in its plants, with the exception of a few minor difficulties in certain departments which were quickly adjusted. The Maxwell division planned to reach a production of 400 cars daily, but the best the company has been able to do to date is to turn out 200 cars. This concern is finding it hard to get competent workers, as well as material. The Chalmers division sales department is hundreds of cars ahead of production, but cannot boost its output because of a similar situation. From fifty to seventy cars are being made daily. This production would be increased 40 per cent immediately if material was available.

The Willys-Overland Co. is just getting back into production after a tie-up of nearly 2½ months. The company is now making a few cars daily. During the month of June no completed cars were made. Just prior to the strike in April production was averaging 550 daily. C. A. Earl, vice-president and

general manager, says the company will be back in fair production in about 30 days. This company and the Studebaker Corp.'s plant No. 3 of Detroit were among the few directly affected by labor trouble.

The Wilson Body strike caused the Hupp Motor Car Corp.'s production to fall off 1000 cars in June. In spite of this curtailment the company managed to average approximately eighty cars a day. Bodies are now coming through more regularly and production is going up again.

Production at the Cadillac Motor Car Co. has been limited by a material shortage. The company is running seventy cars daily, but will double this production within the next 60 days if the material and labor situations permit.

The Columbia Motors Co. is running thirty cars a day and is one of the few companies in Detroit which has been able to record a steady production increase. If the parts makers could supply the material this company would greatly increase its production. To keep up with its orders for cars the Columbia company would be obliged to produce 125 cars per day.

Liberty Forty a Day

The Liberty Motor Car Co. is running forty cars daily. The company states the material situation is bad, but inasmuch as its manufacturing facilities prevent further production increase it is not greatly affected. The company has orders for more cars than it can manufacture, according to present schedule, in the next 16 months. Two new closed car models will be brought out next month.

The Oakland Motor Car Co., Pontiac, has experienced little labor and material trouble. Its production has reached the highest point in its history. Its daily output is now averaging 265 cars, which is an increase of forty cars over May figures. The company has not reached peak production, however, although by Aug. 1 it expects the daily turn out will be at the 300 car mark.

The Barley Motor Car Co., Kalamazoo, is 1000 car orders ahead of production. The company is turning out ten cars daily. The capacity of the plant is twenty cars per day. It is unable to reach capacity because of inability to secure sufficient bodies which it is getting from Muncie, Ind.

The Olds Motor Works, Lansing, is having difficulty in getting small parts for universal joints, electric equipment, closed car bodies, proper cloth trimmings for closed cars, khaki tops for export jobs. On one or two occasions the material shortage became so acute that the plant was within 12 hr. of closing down. By pressing all available men into service and rushing them to the plants of the various parts makers to hurry up delivery, the company was able to secure sufficient material to tide them over the crisis. On several occasions lately this company has faced this same situation. Even now, trucks are being

Daily Production Shows Decrease in 32 Plants

Passenger car production for June in the leading Michigan and Ohio factories was considerably below that of April and May, as shown by the following daily averages:

April May June

Aprii	may	June
Buick 500	5บปั	500
Briscoe 75	75	75
Bariey 10	10	10
Cadiliac 100	80	70
Chaimers 80	80	60
Chaudier 60	70	100
Chevroiet 700	726	750
Columbia 18	20	30
Dodge 500	500	450
Dort 100	100	100
Ford3.000	3.000	3.000
Harroun 15	15	10
Hudson 100	100	100
Hupp 75	6)	75
Liberty 30	žó	40
Maxwell 250	250	200
Oakland		265
Olympian 10	12	12
Oldsmobile 140	150	140
Overland 600	200	
Packard 25	25	25
Paige 70	75	75
Paterson 15	15	15
Jordon 12	15:	15
Reo 125	125	125
Saxon 50	35	80
Scripps-Booth 45	50	50
Studebaker 200	150	165
Dearloss		10
Winton 10	iò	10
Essex 100	100	100
Grant 50	50	40
Grant		- 10
Total7.084	6.688	6.647
1 Utal	0,000	U, UT !

shipped minus electrical equipment, which is installed in the salesrooms.

The Reo Motor Car Co., Lansing, is speeding up production. It is turning out between fifty and sixty trucks and from seventy-five to eighty passenger cars daily. Production has not been hampered by material shortage. This is one of the few companies which has not been seriously affected. The Reo company is going to discontinue production of the four-cylinder cars, supplementing same with six-cylinder models.

The Briscoe Motor Corp., Jackson, is turning out seventy-five cars daily. This company had a large stock of material on hand and to date has not found it necessary to purchase more parts in any great quantity.

Studebaker 165 a Day

The Detroit plant of the Studebaker Corp. is not hit hard by material shortage. Although it has encountered more or less trouble from this source, the labor situation has cleared up here and the company is now back into good production. The plant is turning out 165 cars daily and expects to greatly increase this output within the next 30 days.

The automobile companies in Cleveland are finding their chief difficulty in obtaining parts from Detroit and other centers. The Cleveland parts makers are in a fair shape. What labor difficulties they have encountered have not been of a serious nature, and the result has been a sufficient production to cover Cleveland demands. The automobile companies here, dependent largely upon Detroit for certain materials, are having their troubles.

The Peerless Motor Car Co. has had a hard time to get sufficient axles due to the Timken-Detroit Axle strike. This has caused production to vary greatly. During June the Peerless company averaged ten cars daily. Five thousand cars will be made this year. The plant's capacity is 10,000 cars annually, but the company does not hope to reach capacity production this year. Additions to the factory are being built.

The Jordan Motor Car Co. is having trouble getting parts from Detroit, its most serious shortage being that of tops. This company is running fifteen cars daily, and in addition to a complete new plant, which is now under construction. it has just authorized the erection of an additional unit having a floor space of 30,000 sq. ft., to be used for stock pur-

The Grant Motor Car Co. is running five trucks and forty passenger cars daily. Here the material situation is exactly similar to that of the Peerless and Jordan companies.

Chandler Hard Hit

The Chandler Motor Car Co.'s production has been hit hard this week by a strike in the plant of the Interstate Foundry Co., Cleveland. This foundry supplies the Chandler company with cylinders and transmission cases, and the walk-out caught the automobile concern with practically no transmission cases on hand. The Chandler company, however, has other sources of supply and expects to be back at peak production within a week. During the month of June this company's average daily production was 100 cars. It is experiencing considerable trouble in getting parts from Detroit.

The Winton Co. is running from seven to ten cars daily, but has sufficient orders on hand to merit operating the plant at capacity. The material situation has not affected production here to any great extent, although the company is having more or less trouble in getting certain oarts.

The Saxon Motor Car Corp. averaged thirty cars daily last month. This company is cleaning up production on its present models preparatory to bringing out a new series shortly. During the next 30 days production in this plant will drop to a minimum, after which the first 500 cars of the new series will start coming through.

The average daily production of the thirty-two leading automobile plants in Michigan and Ohio during June 6647 cars. which is just thirty-one cars less than was produced in May. The May figures were 6688. Both May and June production is nearly 1000 cars short of April.

Inasmuch as the labor situation is rapidly clearing in Detroit, every indication now points to nearly normal conditions as far as labor is concerned during July. The coming month will probably see production again climbing in the majority of factories in this district.

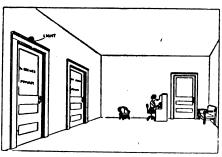
EASTERNERS MAY **BUY FORD STOCK**

Minority Shareholders Indicate Sale Is Probable—G. M. C. Not Seeking Purchase

NEW YORK, July 1-Persistent reports of negotiations to acquire the minority and, eventually, it is presumed, the majority stock of the Ford Motor Co. have made their reappearance after several weeks' quiet, this time naming an eastern syndicate as an alternate to the General Motors Corp. as the would-be purchaser.

One story has mentioned a New England trust company supposedly acting for New York interests, as seeking to buy the shares of minority stockholders. Investigation here has failed to reveal the identity of the supposed negotiators. Admissions have been made by Ford minerity interests that a sale was likely.

As far as the General Motors Corp., with its associated du Pont connections,



When C. P. Brewer, of the C. P. Brewer Motor Co., Spokane, doesn't want to be disturbed he lights the light over the outside of his office door and the telephone operator governs herself accordingly

are concerned, no such negotiations are in progress, it was said to-day at the offices of W. G. Durant, president of the General Motors Corp. The company denied any intention of attempting to acquire Ford shares, in any quantity. At the same time the company disposed of reports that it proposed to acquire control of Continental Motors and the Goodyear.

Ford officials, according to a despatch from Detroit, have declined to discuss the reports of impending stock transfers, but some of the minority stockholders have made statements which practically confirm the fact that a deal for the purchase of that portion of the stock is pending. David Gray, of Detroit, one of the minority stockholders, said is was very likely that a sale would be effected. Half a dozen interests had been trying to get the stock, he said, but only one was being seriously considered. He would not name that interest. H. H. Bockhar, another stockholder, declared that rumors of such negotiations had been heard for a long time.

Ever since Henry Ford announced that he could bring out a \$250 automobile, to be made by a company entirely independent of the Ford Motor Co., rumors

that he would probably withdraw from the Ford company completely have been prevalent. At one time it was said that an agreement for the purchase of the Ford stock by General Motors was practically complete. This deal, according torumor, was held up because there was a difference of apporxicately \$10,000,000 between the price offered and that asked by Ford. It was said that General Motorswas willing to pay \$187,000,000 for the Ford stock. Another obstacle preventing the sale at that time was said tohave been the refusal of Ford to sign anagreement not to resume manufactureof a passenger car.

For the last year Ford has been paying much more attention to his tractor interests than to his automobile plant. Inthis connection it is pointed out that he has achieved his ambition to become the leading passenger car producer in the world and now desires the same rank in the tractor field. To accomplish this he would willingly withdraw his capital from the Ford company to invest it in tractor

expansion, it is said.

There is no question but that Ford purposes to get into very extensive tractor production in the near future. When he built his shipbuilding plant the units were fundamentally designed to handle tractor production after the war. His contract with the government for Eagle boats is progressing rapidly, and it is said here that immediately upon its completion the shipbuilding plant will be turned into another tractor plant and Fordson production doubled.

Not Liable for Damaged Car

TORONTO, June 28-The Ontario Garage and Motor Sales, Ltd., and S. W. Nicholas, a patron of the garage, were freed in court here recently of responsibility for the damage of another customer's car in the burning of the garage. The car, left at the establishment for repairs, was partially consumed in a blaze which started when one of the garagemen, driving the automobile of Nicholas out of the place, collided with the wall, and set fire to the building. The court held that the fire was accidental.

Hammacher, Schlemmer to Sell Automotive Equipment

NEW YORK, June 26—Hammacher, Schlemmer & Co., a large hardware house at Fourth Avenue and Thirteenth Street, has opened a new department for the sale of automotive equipment.

Carolina Firm Builds

CHARLOTTE, N. C., June 28-The Carolinas Auto Supply House, a wholesale accessory concern headed by Joseph G. Fitzsimmons, has purchased for \$25,-000 the building which it occupies and will expend \$35,000 on improvements.

Briscoe Making Carburetor

JACKSON, MICH., June 27-The Briscoe Devices Co. has purchased the Jackson Carburetor Co. and is now making the Scoe carburetor, formerly known as the Dave Buick.



SOUTHERN JOBBERS FOR BETTER ROADS

115 Equipment Men Discuss Problems of Trade at New Orleans Meeting

NEW ORLEANS, LA., June 28—The Southern Automotive Equipment Jobbers' Association, comprising 115 automobile supply houses scattered through virtually all the southern states, met here yesterday and to-day in the annual convention of the organization, with 103 of the membership in attendance.

Business problems were discussed almost exclusively, and considerable time was given to a number of plans presented for the greater development of the automotive equipment industry in the South, special equipment for trucks and tractors occupying an important posi-tion in this discussion. The association went on record as supporting the good roads movement in all the southern states, and in the United States in general, and delegates from Mississippi and Louisiana were a unit in their support for the formation of the Bi-State Automobile Dealers' Association, which is to meet here July 10 and 11. A. H. Borden, vice-president of the Shuler Auto Supply Co. of New Orleans, who eriginated the idea of the bi-state organization, is also president of the automotive equipment tobbers.

Leading speakers at the annual convention of the jobbers Friday and Saturdsy, besides Mr. Borden, were Lawrence Hirsh, Nashville; E. F. Yancey, Atlanta; D. A. Graves, Chattanooga; Charles W. Horn, Birmingham; James G. Fitzsimmons, Charlotte, N. C., and C. F. Roberts, Charleston, S. C. The delegates were welcomed to New Orleans by Mayor Martin Behrman and B. C. Casanas, president of the local Association of Commerce. Charles W. Horn responded on the part of the association. The southern association is the oldest and strong-

est in the South, and has performed aggressive work for the auto equipment jobbers ever since its organization, having accomplished much for the betterment of business and for better service for the consumer as well.

Officers of the Southern Automotive Equipment Jobbers, besides President Borden, are Charles W. Horn, Birmingham, vice-president; and E. F. Yancey, Atlanta, secretary-treasurer. At noon, June 27, the visitors were entertained with a luncheon at the Grunewald, and on the afternoon of June 28 were taken on a sightseeing tour of the 41 miles of harbor in New Orleans.

21 Millions for New

Wisconsin Highways

MILWAUKEE, WIS., June 28—Reports of legislation vital to the automobile trades, including authorization of 2500 additional miles of trunk highways, were made to dealers and distributers of the Wisconsin territory at the annual 26. To finance the improvements a state tax has been authorized netting \$1,700,000 a year for 1920-21-22, a total of \$5,100,000 to meet the Federal aid of \$5,100,000 which will be received during that period. The counties are required to raise an equal amount, making a grand total of \$15,300,000. Under the act of two years ago \$6,000,000 was made available, of which little has been expended, thus making \$21,300,000 available for highway construction.

Car Demand in Ottawa Heavy

OTTAWA, ONT., June 26—The brisk trade situation of the past few months has resulted in a number of reliable agencies going begging. Local dealers have been so crowded with business that they are unable to take on further lines. This applies to both passenger and truck models. Shipments from factories have increased during the past month, but still the demand is far greater than the supply.

DEALERS AND OWNERS TO MEET IN SOUTH

Bi-State Session to Bring Louisiana and Mississippi Interests Together

NEW ORLEANS, June 28—A convention of Louisiana and Mississippi car dealers and owners, at which is to be organized the Bi-State Auto Association, will be held here July 10 and 11. The convention will be called to order by A H. Borden, vice-president of the Shuler Auto Co., at 10 a. m. July 10. He will preside until regular officers are named Mayor Martin Behrman and L. C. Blenny. president of the New Orleans Automobile Dealers' Association, will welcome the visitors to New Orleans, and appointment of nominating and convention committees will follow.

Afternoon of the first day will be taken up by a general outline of the plan of the association, the adoption of a constitution and by-laws and election of officers.

The following day will be devoted to discussion of topics pertaining to the industry in the two states. Among these will be: "Why Organization Is Necessary;" "Sales Promotion;" "Dealers' Ills That Can Be Remedied;" "Joint Interests of Mississippi and Louisiana;" "The "Used Car' Bugaboo;" "Ethics;" "The Truck Dealer—His Problems;" and "Legislation."

Rubber Industry Booming

AKRON, OHIO, June 24—The rubber factories are employing more men at present than at any other time in the history of the industry. At the Goodyear Tire & Rubber Co., 22,500 men and women are employed, Goodrich reports 23,325, and Firestone reports 15,000 on their pay-roll. All of the factories are short of help, they say, and it is almost impossible to get all the men needed.





Here are two ways of making a window display out of such mechanical goods as electric drills. In the window of the Chanslor & Lyon Co., San Francisco, life-sized cutouts, furnished by the Black & Decker Mfg. Co., Baltimers, makers of the goods. Crêpe paper was effectively used in the Standard Supply & Equipment Co.'s window

OREGON TO LICENSE MOTOR MECHANICS

First State to Try Plan Provides for Grades for Garage Workers

PORTLAND, ORE., June 30-Governor Olcott of Oregon has appointed Professor M. L. Granning, of Oregon Agricultural College, E. E. Boggess of Portland, and Hal R. Fancher of The Dalles, as members of the new State Board of Automobile Mechanics Examiners, which is to examine all persons working for hire in Oregon as automobile or truck mechanics, and license those found qualified. Under the law creating the board, which so far as known is the first of its kind in the United States, mechanics not licensed by the board will be subject to \$100 penalty if they work for hire as automobile or truck mechanics.

The board is required to visit various parts of the state at specified intervals to conduct examinations.

The board has organized with Boggess as president, Fancher as vice-president, and Professor Granning as secretary-

treasurer. All three are men of many years practical experience as mechanics. Boggess is a garage operator and repairman of Portland, Fancher operates a garage and repairshop at The Dalles, and Professor Granning is head of the automobile department at Oregon Agricultural College.

One of the first questions arising under the new law is the disposition to be made of men working as mechanics in the smaller communities of the state who, though certainly not skilled mechanics in many instances, are the only ones obtainable and much better than none.

The board has a tentative solution of this problem that is interesting. As explained by Professor Granning it consists of putting mechanics in four or more classifications according to skill and practical knowledge. For instance, Class A would include first-class all around mechanics, who must pass a searching examination to obtain that rating; Class B would include men rated as good mechanics; and so on down to apprentices and helpers. The board purposes using considerable discretion in granting licenses to men of the latter classifications to work in the small towns that would otherwise be without mechanics, but will be much more critical in the larger places.

GOODYEAR TO BUILD ON PACIFIC COAST?

Tire Company Has Option on 480-Acre Site at Los Angeles

AKRON, OHIO, June 28—It is said here that the Goodyear Tire & Rubber Co. has secured options on 480 acres of land in Los Angeles, Cal., and will build a branch plant there. A capitalization of \$7,500,000 is contemplated and has already been underwritten by a banking syndicate.

F. A. Seiberling, president of the company, stated that an option has been taken on Pacific coast land, but no definite decision has been made on the erection of a plant.

If the move materializes it will be the first expansion of any of the Akron rubber companies outside of this city. Men close to the rubber market point out that the city of Los Angeles is directly on the route to the Goodyear rubber plantations in the far east and not far from the company's cotton plantations in the state of Arizona.

We'll Say the Outing Season Is On

Editor Motor World: Dear Ed.—June 25 was a great day for raincoats and the Philadelphia Garage Association. The latter enjoyed their Second Annual Sociability Run to the picturesque and hospitable town of Reading, some fifty-eight miles distant.

The "Run" left the Northeast boulevard at 9 o'clock sharp. There is nothing dull about these boys. The road was in perfect condition, excepting two short detours, which did no more damage than make not a few of us rather "dry."

We were met and welcomed at Douglessville, 14 miles south of Reading, by a committee of the Reading Automobile Trade Association. We also met the police force of "Doug" ville. He is a tall thin chap, carrying an "I'll-have-thesame" expression on his smiling countenance.

After a very feeble attempt to wash down the dust that had gathered in each and every throat while de-touring, the Reading trade boys, with no little noise, escorted us to their home town. An informal "parade" took us out Penn Street, across the Schuylkill River and countermarched, ending in a climb over the mountain, the roadbed of which was laid, coiled-out, like some massive reptile at rest.

We were welcomed by the "natives" along the line, with hand-wavings and complimentary exclamations regarding the "beauty" we presented. The next affair, we noticed by the billboards, will be the R. B. & B. B. Circus. The Hose Co., at 10th and Penn, greeted us with the sounding of their siren. The factory

whistles blew out their welcome, too. It was just noon.

At the Eagle's Mountain Home we were presented with the key to the city and a massive pretzel, both made of the dough that made Reading famous. I disremember the gentleman's name who did the presenting, but he also informed us that the motor laws of Reading were not only strict, but enforced. In part he said: "Should any of you be arrested it will be necessary for you to go through the regular routine, but, by calling upon ME you will EVENTUALLY get out," or words to that effect.

Shortly afterwards an officer of the law, arriving in an officially stamped motorcycle, and calling out a license number informed the owner that he was under arrest for passing a standing trolley. He, the "cop," played his part to perfection. When the joke was finally explained the recipient of it said his day would be 100 per cent perfect if he could only "kick the cop bow-legged." Some expression, but it drew a laugh.

The dinner, which was served on the veranda of the Eagle's Mountain Home, went something like this:

The chicken noodle soup was the best NOODLE soup we ever tasted, and I may add, the quietest. The radishes must have been raised at the foot of the mountain, for they were strong enough to held the said mountain in place for ages.

Scallions! Oh, boy! One man at the head of the table, with more nerve than good taste, devoured one. That was enough. It satisfied the rest of us.

I do not eat beets, but I overheard

someone say they looked fine. And, of course, the inevitable bread sticks were present.

The chicken and the waffles? I treat old age with respect and am not a good enough judge of raw rubber to pass remarks regarding the waffles. The browned Murphys were in Dutch and the peas were built square so that the garageman could keep them on his knife. Menued also were creamed cucumbers, a la colic, and cottage cheese au smearase. We didn't know what either of "them things was" and we didn't find out. We didn't get "any."

Getting down to the pit of the dinner, we had ice cream and cherry pie. We pitted our marksmanship by shooting cherry pits at each other. One woman nearly had a fit when a pit landed, with a miniature-fountain effect, in her coffee. She spoke terribly harshly to a certain somebody. That somebody told her she was at a picnic, not a ball. One man liked the coffee so much he drank nine saucersful, or rather empty.

After the assault on the meal, some were taken up the mountain; others held solemn requiems in the bar; others (?) went to the city, and some stayed all night.

I can safely state that each and every Philadelphia visitor wishes one and all of Reading's automobile men success. prosperity and happiness.

Good luck and long life to the Reading Automobile Trade Association.

Suffice, it was a day well spent and very much enjoyed.—Your old friend, "The Count," Jas. J. Jennings, H. N. A. Automobile Supply House, Philadelphia.



Price Changes of Cars, Trucks and Tractors

Hudson Prices Up

DETROIT, June 28—The Hudson Motor Car Co. has raised the price on all. Hudson and Essex models except the Essex Sedans. On Hudson cars the increase is \$125, while the Essex price has been raised \$200. Increased cost of materials and labor, it is said, forces the company to take this action. The new prices went into effect July 26 and are as follows:

	New	Ola
Model	Price	Price
Hudson—		
Seven-passenger Phaeton.	\$2,100	\$1,975
Four-passenger Phaeton	2,200	2,075
Sedan	2,900	2,775
Cabriolet	2,575	2,450
Coupe	3,075	2,950
Touring Limousine	3,425	3,300
Limousine		3,650
Essex—		
Phaeton	1,595	1,395
Five-passenger Sedan	2,250	2,250
The new Essex roadster		gone

The new Essex roadster has just gone into production, the first complete cars of this model being due in a few days. The price will be announced later.

Olds 8-Cylinders Up \$100

LANSING, MICH., June 27—Effective July 1, the Olds Motor Works will increase the price of its eight-cylinder model \$100. The old price is \$1,795 and the new price, \$1,895. Increased cost of material is responsible for the higher price. It is likely, officials state, that new prices affecting other models will be announced.

Acme Prices Increased

CADILLAC, MICH., June 28—The Acme Motor Truck Co. has announced increases of \$100 in the price of its 3½ and 5-ton trucks, the former advancing to \$3,750 and the latter to \$4,850. Equipment of the smaller vehicle with a pressed steel heat-treated frame instead of a channel section and with a Continental E-7 motor, with flywheel attached, is responsible for its higher price, while the 5-ton chassis, practically in its first year of development, is placed on a cost basis, the former price quotation having been nominal.

Dedge Production Inadequate to Sales

DETROIT, June 28—Dodge Brothers are over 25,000 orders behind production in spite of the fact that the company is turning out between 450 and 500 cars daily. Business was never better, sales officials aver. There are a number of trucks running around Detroit having Dodge chassis. The company denies that

it has any intention of going into the truck manufacturing business, although there has been a rumor to that effect here.

Willys-Overland Back in Stride

DETROIT, June 28—The Toledo, Elmira and Elyria plants of the Willys-Overland Co. are in full operation following the two months' labor difficulty. Approximately 5000 men returned to the Toledo plant, while fully 75 per cent are back in Elmira and Elyria. All departments are now in operation and production is being gradually increased.

Fordson Price Reduced

DETROIT, June 28—Henry Ford & Son have notified distributers of a reduction of \$135 in the price of the Fordson tractor. The new price, effective at once, is \$750. The price is \$600 to the distributer, who turns it over to the dealer at \$635.

The Fordson tractor plant is now getting back into heavy production. Approximately 100 machines are being completed daily. A carrier system similar to the one in the Ford Motor Co. plant at Highland Park is being installed and production is to be doubled within 60 days.

New Clydesdale Truck Brought Out

CLYDE, OHIO, June 27—The Clyde Cars Co. has brought out two lighter models of its Clydesdale trucks, No. 32 and 42 respectively. No. 32 is a 1-ton, and No. 42 a 1½-ton capacity, and have the same constructional features as the heavy models, but are designed especially for delivery work and lighter loads.

Duesenberg May Make Cars

ELIZABETH, N. J., June 27—The Duesenberg Motors Corp. is considering entrance on a large scale into the field of passenger car manufacture. Though no decision has been reached, the company still being under government control, E. P. Decker, general manager, stated that a tentative plan was being worked out for the projected expansion. Until a settlement is effected for War Department contracts still pending, Decker said, the project would remain in abeyance.

More Companies Making Trailers

NEW YORK, June 28—Several companies manufacturing trucks have added special models to their line for hauling trailers, according to the Trailer Manufacturers' Association of America. This step has been taken by Pierce-Arrow, International Motor, Garford, G. M. C., Locomobile, Sterling, Gramm-Bernstein, Indiana, Service, J. C. Wilson, Acme, Winther, Master, Fulton, Armleder, Morel, Koehler, Day-Elder, and Oneida.

The Southern Motor Mfg. Association, Houston, Tex.; Wm. G. Hesse & Son Mfg. Co., Leavenworth, Tex., and the Los Angeles Trailer Co., Los Angeles, joined the association during the month.

CLEVELAND TO HAVE \$1,300,000 GARAGE

Fay's Company to Erect Structure Housing 2000 Motor Cars

CLEVELAND, June 28—The Ninth Garage Co. has been organized to build and operate a \$1,300,000 garage, containing approximately 250,000 sq. ft. of floor space and capable of housing 2,000 automobiles. The officers of the company are: President, W. A. Fay, of the Cuyahoga Builders Supply Co.; vicepresident, J. H. Fuller of the Fuller-Stone Co.; secretary and treasurer Thomas Nolan of the Citizens Saving & Trust Co.; superintendent, F. J. Decker, manager of the Decker Repair Co. The company has purchased the Goodrich house site on which a four-story concrete structure will be built.

New Keldon Truck Put On Market

ST. LOUIS, June 28—A 2-ton truck, to be known as Keldon, is being manufactured by the House Cold & Tire Setter Co. The first truck has been completed. Regular production will begin next month on a basis of 5 to 25 a month.

The Keldon truck has 144-in. wheelbase; 4½ x 5½ in. Buda engine; Eisemann magneto; Stromberg carbureter; Fuller clutch and transmission; Russel internal gear axle; Rose steering gear; Smith steel wheels; Firestone solid tires. The frame is 222 in. long, is made by the Christopher & Simpson Iron Works Co. The fenders, steel and gray iron castings are made in St. Louis.

The price of the Keldon is \$2,685 f.o.b. St. Louis, war tax additional, with \$100 more for cab.

Pierce-Arrow Not Sold

BUFFALO, N. Y., June 30—Persistent reports here and in New York that the Pierce-Arrow Motor Car Co. had been sold were denied to-day by Charles Clifton and Walter C. Wrye, president and treasurer. The officials declared they knew of no foundation for the report, though they admitted that control of the corporation might be obtained by stock purchases on the market.

Ohioans Meet

MARYSVILLE, OHIO, June 28—The Union County Auto Trade Association this week heard addresses by Victor Moon, secretary of the Ohio Auto Trade Association, and Neil O'Connor of the Griswold-Sohl Co. For the meeting July 23 a carbureter expert will be the attraction.

Garage Damaged by Fire

PORTLAND, ORE., June 27—Fire in the building of the Palace Garage Co., Ford dealer and distributer for the Standard truck in Oregon, caused \$35,000 damage.



COMING EVENTS

. Races, Contests and Tours	Piqua, O
Yakima, WashJuly 25-28Fifth Annual, Washington Automobile Chamber of	of Ohio State University Fostoria, OAug. 6-7In charge of Prof. H. C
Commerce. Sheepshead Bay, N. YJuly 4100-mile Sweepstakes. Atlantic City, N. JJuly 4Airplane race, Aeronautic	Ramsower, head of Agri- cultural Engineering Dent
Convention. Tacoma, WashJuly 4Speedway.	of Ohio State University Akron, O
Hohokus, N. JJuly 4Dirt track event.	cultural Engineering Dept
Uniontown, PaJuly 19Midsummer Meet, Speedway. Sheepshead Bay, N. Y. July 26Speedway. Middletown, N. YAug. 15Dirt track event.	Aberdeen, S. DgAug. 18-22 Sectional Tractor Demonstration. Streator, Ill
*Elgin, IllAug. 22-23Road race. *Sheepshead Bay, N. YAug. 23Speedway.	Truck Assn. Ottawa, Ont
*Uniontown, PaSept. 1Speedway. *Sheepshead Bay, N. Y. Sept. 20Speedway. *Allentown, PaSept. 27Dirt track event.	ery. Experimental and
*Cincinnati. O Oct. 1 Speedway.	Ottawa. Ont., CanadaOctober
Trenton, N. JOct. 4Dirt track event. Danbury, ConnOct. 11Dirt track event. Milwaukee, WisJune 24-26First Sociability Tour and	onstration.
Outing, Milwaukee to Lake Geneva, Milwaukee Auto- mobile Dealers.	Shows
*Tentative dates.	Greenville, S. CJuly 14-19Agricultural Implement & Tractor Exposition. F. M
COMPANY CONTON	Burnett, Manager, Greenville, S. CJuly 14-19Agricultural Implements and
Meetings	Tractors. F. M. Burnett General Manager.
Chiladelphia, PaSept. 22-24Annual Convention, National Association of Purchasing	MinnesotaAug. 30-Sept. 6. State Fair. Indianapolis, IndSept. 1-6State Fair. Cars and Accessories. Indianapolis Auto-
Agents, Bellevue-Stratford. Atlantic City, N. JOct. 14-17Twenty-fifth Annual Conven-	mobile Trade Assn., John
tion, Marlborough - Blen- helm, National Hardware Association of the United States,	Cincinnati, OSept. 13-20Ninth Annual, Music Hall Cincinnati Automobile Dealers' Assn H. K
Chicago, III	Shockley, Manager. Springfield, MassSept. 15-20Eastern States Exposition, J O. Simpson, General Manager.
	Chicago, Ill
Foreign Shows	New York, N. YJan. 3-10. Grand Central Palace, Na.
Paris, FranceOct. 15 Grand Palais—International Automobile Manufacturers'	tional Automobile Cham- ber of Commerce, S. A Miles, Manager.
Congress. Condon, Eng	Chicago, IllJan. 24-81Coliseum, Cars: Drexel Pavilion; Trucks, Nationa Automobile Chamber of Commerce, S. A. Miles Manager.
Tractor Demonstrations	Kansas City, MoFeb. Fifth Annual, Kansas City Tractor Club, Guy H. Hall Manager.
Widhita, KanJuly 14-19Automotive Committee of National Implement Asn.	Automotive Shows at Fairs
Columbus, OJuly 28-29In charge of Prof. H. C. Ramsower head of Agri-	
cultural Engineering Dept. of Ohio State University.	Allentown, PaSept. 15-20Lehigh County Agricultura.

Laying Out Fields for Tractor . Plowing

NDER the title of "Laying Out Fields for Tractor Plowing" the United States Department of Agriculture has issued Farmer's Bulletin No. 1045, which contains information valuable to any dealer who is engaged in the sale of tractors and tractor-drawn implements or who is contemplating this field of sale. The booklet covers fields of various sizes and shapes and is very instructive, the plans being accompanied by drawings which show the methods plainly. The information was compiled by inquiry among several hundred tractor owners. Address an inquiry to H. C. Taylor, Office of Farm Management, Department of Agriculture, Washington, D. C., and get a copy.

Jackson Gives Up Cars for Trucks JACKSON, MICH., June 27-The Jack-

New York Stock Exchange Closing Quotations, June 28, 1919

Bld	Asked	Bid	Asked
Chandler Motor Car240	243	Maxwell Motor, 1st pfd 751/2	761/2
Fisher Body, com 85	861/2	Maxwell Motor, 2d pfd 88	38%
Fisher Body, pfd 99%	101	Pierce-Arrow, com 54%	55
General Motors, com236	237	Pierce-Arrow, pfd105%	106
General Motors, pfd 941/2	94%	Saxon Motor Car 10%	10%
General Motors, deb 90	9014	Studebaker, com105%	112
		Studebaker, pfd100	112
Goodrich, B. F., Co., com 80%		Stutz Motor Car 73	78%
Goodrich, B. F., Co., pfd1031/4	1051/2	Stewart-Warner Speedometer 94	99
Kelly-Springfield Tire, com126	127	Stromberg Carburetor 57	58
Kelly-Springfield Tire, pfd 981/2	100	U. S. Rubber, com1351/4	136
Kelsey Wheel, com 53	56	U. S. Rubber, pfd116	116%
Kelsey Wheel, pfd100	101	White Motor 56%	57
Lee Rubber & Tire 34	341/4	Willys-Overland, com 35%	
Maxwell Motor, com 48	48%		85%
DAME TO DECOUPE COMMISSION TO	-0 74	Willys-Overland, pfd 95	96%

son Automobile Co. will start production on its 31/2-ton four-wheel drive truck within two weeks. This company, which has been practically idle since the signing of the armistice, has discontinued manufacture of passenger cars and will hereafter devote itself to truck production only. Material for the initial run of trucks has been obtained, parts machined and assembly work is about to start.



Passenger Cars

GUIDE
WORLD
MOTOR
Passenger Cars

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ABBREVIATIONS—"A.Kent" Atward Kent, "A-Life" Auto-Life, "Conn "Connecticut, "G & D" Gray & Davis, "Eisman" Eisemann, "L-N" Lecce-Neville, "N.E." NorthEast, "Watha" Quick Detected's "C" Clincher. "Quick Tout are smaller. 1814 C tires on Sectan.

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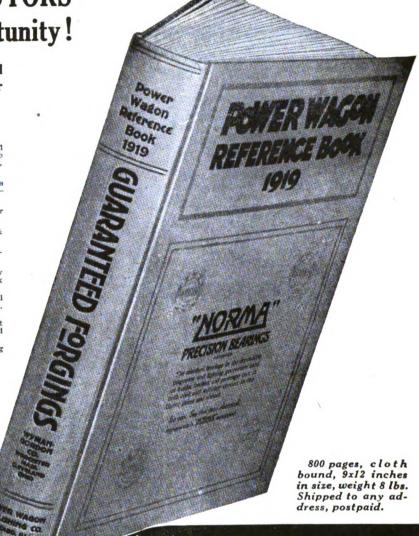
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Vol. LX

New York, U. S. A., Wednesday, July 9, 1919

No. 2

Jammed!



7 WHERE IS LABOR HEADED FOR

And—

What Is the Future of the Employer?

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THE world to-day seethes and boils. None knows what to-morrow will bring. And in all the turmoil and uncertainty is the great problem of labor. Where shall we come out? What is the future of industry and labor? Some predict dire disaster. Others foresee greatly altered conditions. But don't forget this: There will be no "end of the world," no cataclysm, no dire disaster. America is too sensible and sound to permit it—and America is only you and your employees.

REAT economic causes are at work. We shall emerge from to-day's turmoil as the world has always emerged from its times of stress. Some day the sun will shine on calmer scenes, and then we shall look back to these days of travail as we of to-day look back on the troublous times of the sixties. Meantime a thought on the future of labor is worth while. It is given on these pages by Charles F. Coe, who has been preaching the gospel of saneness among New England industries. Before the war he managed the Chevrolet branch in Boston. During the war he aided in managing a war department exhibition enterprise. Read what he says, and then send to Motor World your own opinions and observations on this important subject.

By CHARLES F. COE

THE labor situation is serious. Unless immediately remedied it threatens to become acute. Only the short-sighted business man will fail to recognize this fact. Labor unrest is always serious, but it amounts to a genuine menace at this critical time in the world's history. Something must be done to counteract the insidious agitation which

serves constantly to foment labor troubles. What is that "something" to be?

Following the simple and logical plan of connecting cause with effect, and from the two devising a method of solution, applies to the labor problem as it does to all others. Let us treat first upon the causes.

From a cold business analysis we discover that it would indeed

be surprising if labor were not restless. All other phases of our industrial fabric are in an uncertain condition, while the stock market is indicative of very decided unrest and few men have been able to foresee the action of buyers.

Everywhere we look we see unrest and uncertainty and the answer is that all phases of industry are adapting themselves to new conditions, and labor, being one of the phases, is simply running true to form. Probably one of the most

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common errors is waiting for a return of "pre-war" conditions and endeavoring to base our plans for a return to "pre-war" conditions. "Pre-war" conditions will never return and the quicker we realize this the greater our individual and collective progress will be.

The world has passed through a great refining fire in this war. Established customs have been uprooted and discarded. THE BUSINESS OF DESTRUCTION HAS TAUGHT US MUCH OF CONSTRUCTION. Men are being judged by different standards and the horrors and sacrifices of war have awakened the people to new ideals and fundamentals.

The Old Has Passed

We have witnessed the passing of entire industries. Things have been done that a few short months ago were considered wildly radical and wholly impractical.

The vast majority of our citizens have a financial interest in their government. Small salaried men who had no idea what a bond was are now possessors of bonds and have learned the tremendous earning power of money.

In two years we have witnessed such a dire shortage of labor that wages ceased to be an issue, the call being for men at any price. Immediately following that we see an equally urgent over-supply of labor. Men left their regular vocations to become munitions makers, ship builders, etc., and their employers were forced to let them go, being unable to compete with the wage scale paid by the Government in its all-important war need. Normal industry was cut to the quick; abnormal industry boomed to the echo.

Too Sudden Prosperity

Workmen became accustomed to fancy wages. The supply of commodities was decreased, through labor shortage, and the demand increased through army requirements and the added demand of an increased prosperity. Prices soared. Labor being at a premium, workers became independent, hours were cut and cost of production increased. We suffered acutely from a too sudden prosperity in some industries and a "knock-out" punch in others.

Our excess prosperity was born of abnormal conditions due to war requirements. Our staple, normal industries were entirely upset. Today these normal industries are doing their utmost to attain production and organization after a very decided drouth, while the abnormal industries ceased to be at the signing of the armistice. Can normal industries, in the transitory period, meet the demands of labor and "carry on?"

It must be confessed that labor has shown little or no tendency toward understanding and co-operation. In many cases the man who went to war planning to return to his position when the war ended, returns to find that his position no longer exists. In other

SOUND SENSE

American workmen are men of brains.

They will soon realize that a fair employer can and will do more for them than all the "red" organizers and "agitators" in existence.

cases his employer has been compelled to fill the position and it is impractical to change.

Broader Visions

In a great many cases the men who return are possessed of a broader vision, a greater experience and a quickened ambition and feel themselves capable of filling a greater responsibility. In NO case is the man who went the man who returns. The very fundamentals of his life are changed, just as our conditions are changed, and he has no intention of going on a "pre-war" basis.

The point is, "pre-war" may be likened to "pre-historic" in that it is entirely a thing of the past. We will attain a normal condition in due time, but normality itself will have changed and the solution of our difficulties is to keep pace with the new and forget the old.

The Neglected Class

There are many workers who have had no noticeable salary increase—sales people, office assistants and many others. These people have, through a most commendable sense of loyalty and sacrifice, met the tremendous increase in costs of living from a very slightly increased income and the end of their capabilities is in sight. We have yet to hear from them.

Labor has been and is guilty of some decided mis-conceptions. These must be corrected. Certain factions are demanding of their employers a painfully short working day with unchanged wages by the day.

In several instances demands have been made for shorter hours with no real cause for such a demand, and, in at least one case, workers are demanding a five-day week. This really amounts to a demand for the right to "loaf" an extra day and is unworthy of and detrimental to the worker himself...

LABOR, PERSISTING IN SUCH METHODS, IS WRITING ITS OWN DEATH WARRANT. INDUSTRY WILL BE CRIPPLED.

Excessive Demands

We see a great many unnaturalized workmen demanding wages far in excess of accepted standards. These men, being foreigners, escaped the draft and benefited by the labor shortage. They have been educated to fancy wages and refuse to relinquish them. They are constantly demanding and "agitating" and thus add to an already heavy burden on industry.

These men are the type easily lead by glowing promises and "soap-box" oratory and, because their demands were met during war times, they can see no reason why equal productivity should not crown continued effort.

Exploitation of Values

They are told that the worker does not receive a fair portion of the value he produces and, with their ignorance of actual conditions, it is not a difficult task to convince them of this. They believe that labor is being exploited to produce some of the few vast fortunes in this country, whereas labor is not being exploited but values are.

Vast fortunes today come from stock manipulations which is not an industrial function but a capitalistic one, and there is a great difference between Capital and Industry.

Labor Always Pays

The latter suffers more from exploitation of values than labor. Labor demanding from industrial management accomplishes naught because everything granted labor must in turn be taken from it in increased cost of commodities, again striking the class who have had no substantial increases.

Labor is striking its friends Industrial Management and bids fair to bring about serious difficulties for itself. Exploitation of values is the thing requiring regulation and this can

(Continued on page 16)



What

The Ideal Tractor Dealer

Should Be

There Are a Lot of Right Ways and Wrong Ways of Handling Tractors, and Tractor Bill Sets Forth the Big Idea

 In this description of the ideal tractor dealer are combined the best points of a number of successful dealers. There are money-making ideas on these pages for every man who sells tractors or contemplates going into the business.

BY TRACTOR BILL

OU know, there's a whole lot to this tractor business. Its official flag is the jumper and its coat of arms is a grease spot on a field argent with a spanner wrench rampant. The man who thinks all he's got to do is to drive out into the country and cop off names on the dotted line has another guess coming, take it from me. I.know!

It wasn't all fool luck on my part that I found some of this out before I went into the tractor business. The right steer was given to me by a friend of mine who sells the Studebaker car and the I. H. C. tractors at Manning, Ia.—A. E. Brockmann. You see, it was this

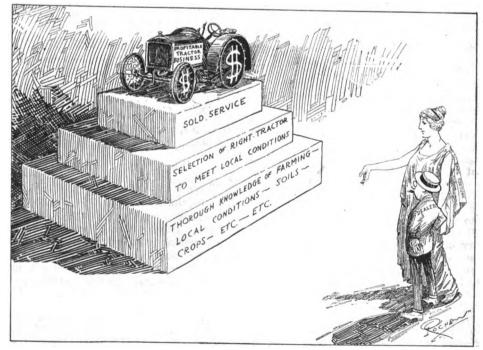
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I'd been selling the Bullick and the Cataract cars and when Uncle Sam went dippy on the notion that passenger cars and hearses were pleasure vehicles and put a crimp in their production, I found myself up against it for something wherewith to pay the rent and buy butterine for the kiddies. I'd never thought much about the tractor as a possibility, but I'd been reading a good deal about it in MOTOR World and finally it soaked into me that maybe this paper knew what it was talking about and that maybe I'd better give it the once over. Now, I didn't know any more about a tractor than a hog does

about Latin, but I'm one of those guys who'll try anything once and I thought maybe I could get across with it. So I began to sit up and take notice of the tractor.

About this time I happened to run across a letter written by a big and successful farmer up in Wisconsin and what he had to say about the way dealers sold tractors was a-plenty. Among other things was this:

"Essentially, motor car agents are salesmen, not technical men, and in this connection maybe in the position of selling the farmer something that he cannot use and therefore giving a black eye to the transaction and to the tractor business in general. How does the average agent know what kind or type or style tractor the farmer should have? If he sells him the unsuitable type isn't he doing more harm than good just for the



A profitable tractor business rests upon a definite, tangible foundation and the success of the business is determined by the solidity of the foundation

purpose of immediate selling of a tractor? Further, are any of the dealers taking on lines of tractors that are suited to the kind of farm work done in their particular locality? Are they not just grabbing off the plums of the successful companies regardless of type, size or style? I rather think that if the business is to be pushed successfully these things had better be taken into account."

Never Thought It Made a Difference

Say, that was some jolt. I'd never even thought it made any difference, just so it was a tractor. They all looked alike to me. But here was a big farmer who didn't think so, and, being a farmer and a successful one, I got a hunch that maybe he knew what he was talking about and maybe I'd better not dive in until I knew how deep the water was so that I'd neither bump my head on the bottom nor get stuck in the mud. It was about this time I had a talk with Brockmann.

I'd known Brockmann for some time. I knew he'd worked for a number of years in the Heider tractor factory when that machine was made at Carroll, Ia., and before it was bought by the Rock Island Plow Co. I'd heard, too, that A. E. was planning to go into the tractor business at Manning, so I went to see him. It just occurred to me that a man who knew as much about tractors as he ought to know, in the light of the experience he had had, would not go to selling them unless he knew what he was doing, and I figured he wouldn't give me a bum steer.

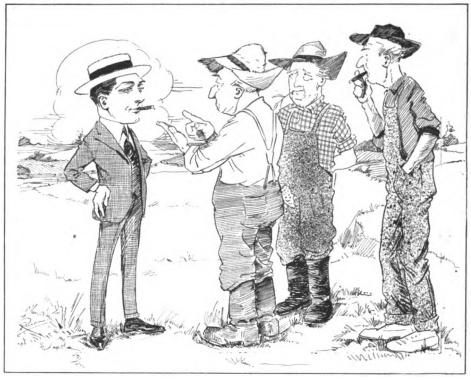
I told him what the Wisconsin farmer said, and asked him what he thought about it.

Must Know Farm Conditions

"Sure, that's the dope," said Brockmann. "That feller's got the right slant. If I don't know anything about the farm and farming, what kind of soil the farm has, whether it's flat or standing on edge, whether the farmer grows wheat or turnips, how in time can I tell the farmer what sort of a tractor he's going to want?

"Might just as well try to buy him a pair of shoes without knowing the size of his feet and where his corns are—might send him a 7A when what he needed is 11D. No, sir. the man who tries to sell tractors without first knowing all about the farming conditions in his territory is not only a chump but is the sort of dealer the farmers ought to take out and kick some sense into.

"The farmer doesn't know usually what he wants and the dealer has to tell him, and if the dealer doesn't know enough to tell him right there'll be the very dickens to pay. If you're thinking of going into the tractor business the first thing for you to find out is what the conditions are and then select a tractor which will come the nearest to meeting those conditions. Get that machine or stay out of the



"I went into the country—onto the farm—and talked with the farmers about soils, hills and crops"

business unless you're dead set on running head on into gobs of trouble.

"That's what I did. Went out into the country right onto the farms and talked with the farmers about soils, hills and crops. Some of them already owned tractors and them I asked what troubles they had had and what caused them. I wanted to know how and where the machines they had had fallen down.

"Then I came back here and took my time picking out the machine I thought would best meet conditions as I had found them, on the average. Then I bought that machine and was willing to take a chance.

"I think that's the first thing the tractor dealer ought to do—learn everything he possibly can about farming conditions, then he won't ordinarily go very far wrong in advising the farmers what to do. Looks like some trouble, but then it's better to take a little trouble now than to pay for a lot of it afterward trying to make a lot of misfit tractors attick"

Agricultural Professors Short on "Dope"

I got to thinking the matter over some more after I got back home and it occured to me that it might be a good stunt, inasmuch as it wasn't very far, to run over to Ames, where the agricultural college is, and see what the professors and other agricultural bugs there could tell me.

So I went. But there was nothing doing. Those highbrows over there were just running around in circles and peeping over this tractor proposition and didn't seem to have gotten anywhere. So far as getting any worthwhile information out of them the trip was worth

minus nothing and nothing to carry. But it paid, nevertheless, because at Ames I met Harry Dunlap, live wire manager of the Dunlap Motor Co., Ford and Fordson dealer.

You know, a motor car salesroom draws me like sugar does a fly, and Dunlap has the most attractive place in Ames. When I went in a tall, slim, good-looking chap, Dunlap in fact, was bossing a carpenter who was about to saw off the end of a counter and move it back. The counter, as it was, started at the side of the front door and ran back to a gate clear at the back end of the showroom. Dunlap's desk was up front and when anybody came in he had to walk clear around that counter to get to him. This wasn't quick enough action for Dunlap.

Dunlap Believes in Removing Obstacles

"When anybody comes through that door I want to be able to get to him pronto," said Dunlap, "before he can wander away and get lost. As things are now I've got to walk around that dinged counter, and a man gets cold waiting before I can get to him and give him the glad hand and tell him I'm glad he dropped in. I'm going to move that counter back, put the gate up at this end and I'll be able to get to a man by the time he's got the door closed. That's what counts in this business; from a handshake and a smile to the last word in service, get on the job and get on quick."

Say, that sounded like good horse sense to me and I made up my mind that when I got home I'd look over my own layout and see if I couldn't improve things a little, cut out lost motion and

the like and get things into such shape that we could all do our work better without falling over things.

By this time, anyway, I'd made up my mind to give the tractor business a whirl and I wanted to whirl in the right direction. I'd looked into the farm situation a little and I believed I'd got a pretty fair notion of what the farmers in my vicinity needed and I'd even gone so far as practically to make up my mind which tractor I'd try to sell.

In the meantime I'd gathered the notion into my bean that the way to success in the tractor business was along service lines after the right machine had been selected.

Proper Equipment for Right Service

To give the right kind of service I had to have the shop, the equipment, the necessary means for hopping to trouble quick and the men to shoot it when they got there.

I could see that if there ever was any tractor trouble, and I was not foolish enough to think I would be able to avoid it, it was certain to come when the farmer was using his machine in the field and when time would be the most valuable thing he had.

This meant that I had to go to the machine because the farmer could not very well bring the machine to me, and that when I got to it I just had to make good fixing it.

That's the idea of service my friend, Charlie Notestine, who sells Overland cars, Republic trucks, and Advance-Rumely, Waterloo Boy and Emerson-Brantingham tractors at Newton, Iowa, has. He knows something about it because he had been selling implements to the farmer for a good many years before he came to Newton and he knows what the farmers want and must have in the way of service. He says a service man should not be one who only attempts to give service, but one who not only knows what to do but does it. That's the kind of men whom I made up my mind I'd have-any other kind would be worse than none at all.

Tractor Salesroom and Repair Shop

I knew something about what I wanted in the way of a salesroom and repair shop. Already I had a pretty nifty little joint. It was all O.K. for motor cars, but I realized I'd have to have something more if I took on tractors. I'd seen Tom Swaney's place at Carroll, Iowa, with his big display windows, glass accessory cases, commodious office, big showroom and a garage equipment in the rear which made his repair shop look like a machine shop.

Also I'd seen the Rude plant at Perry, Iowa, where the repair shop occupies all of the second story. Swaney's layout struck me as the most convenient, and as I had plenty of room to extend back, I adopted his plan. If I had not had the room I think I should do as the Rude people have done at Perry, and

put my shop on the second floor and get to it by means of a big elevator.

So I remodeled my office and showrooms. I put the office to one side so as to give me as much display space as possible and separated it from the showroom with a counter, not forgetting to leave a hole in that counter up front, like my friend Dunlap. I had two big display windows. One, on the office side, I fixed up for the display of accessories. The other I left for either a motor car or a tractor, as the case might be. Just then I inclined to the tractor. Back of the office I partitioned off a repair and accessory room, leaving a doorway into it from the office and putting in an arch between it and the showroom, closed by a glass accessory show case.

Back of the office I had my garage, with the driveway off the alley, and

HOW ABOUT YOU?

In this story are ideas gathered from successful tractor men. Have you in your business an idea, not mentioned here, which has helped you to tractor success? If so, may we have it for publication, so that others may benefit by your experience?

back of the garage I put my repairshop. In this last I put up-to-date equipment designed to expedite repair work on all kinds of automotive apparatus. I hired two or three good mechanics, one of whom had had some tractor and farm machinery experience, and then I was ready to hop to it.

Say, I found I'd just begun to get wise. I hadn't more than got one of my tractors with a plow hitched behind it set in front of my display window when in blew a farmer. He asked me if he could drag a peg tooth harrow behind the plow, and if he could how he should hitch it

By gum, he had me up a tree the first shot out of the gun. I didn't know whether that darned harrow ought to be hitched tandem or in series parallel. I hemmed and hawed over the proposition until he got tired of it, thinking, probably, that a man who didn't know any more about how to hitch a harrow behind a plow than I did couldn't be a very good authority on a tractor. Anyway he breezed out again and afterward I heard he'd bought from another dealer down the street who either knew more than I did or was a better bluffer, one or the other.

Well, I went back and sat down to have it out with myself. Before I got through calling myself names a telegram came in calling me to Des Moines, and a mighty good thing for me it was that it came just when it did, for down at Des Moines I found out what was the matter with me and the way to cure it.

You see, there was a meeting of motor car men called at Des Moines to take up some legislative matters or something of that kind, and all of us who could get there were expected to come. I'd always believed in taking an interest in such things because I thought that, big as it was, the automotive business was going to be still bigger, and it was the duty of every dealer to lend as much of his time and his money as he could to the things which would benefit the trade. I think it's a good investment—at any rate I have found it to be so.

Well, after we had been over to the state house and had interviewed a lot of embryo and would-be statesmen, in the meantime putting the kibosh on some fool legislation they threatened to pass, a bunch of us met in the lobby of the Chamberlain and got to chewing the rag.

Of course we talked shop. Who ever saw a bunch of motor car men get together that didn't. And pretty soon I noticed that two of the fellows there were listened to by the others with considerable respect. I asked who they were and was told that one was Lloyd Edson, sales manager of the Rude organization at Cedar Rapids, and the other was E. J. Haupert, manager of the Rude branch at Perry.

Meets a Human Efficiency "Bug"

I very soon got wise to the fact that Edson was a "bug" on efficiency, but, unilke a lot of other fellows who get that slant, he still could be almost human and could say damn without cracking a spark plug. He said it once, too, in a connection that hit me right where it hurt.

He said that any motor car dealer who undertook to sell tractors without first organizing his business for it and putting a man at the head of the tractor department who know something about farming and who could talk the farmer language stood a d——d good chance of making a fizzle of the business. As that harrow slip-up of mine was still rankling in my mind, I took notice.

Then Haupert spoke up and made it unanimous. He said he had his business thoroughly departmentized and, after having tried to run a business along the old methods where everybody tried to do everthing from putting in a new spark plug to selling a sedan, he had specialized his men and, as a result, he had increased his business until it was six times as big as it had been four years before. And now that he had taken on tractors he had added another department and had put a special man, a farmer who had graduated into selling, at the head of it.

Capitalizing on Knowledge of Farmers' Needs

There were two other chaps there, one from Ames and one from Boone. The (Continued on page 16)



1920 Maxwell

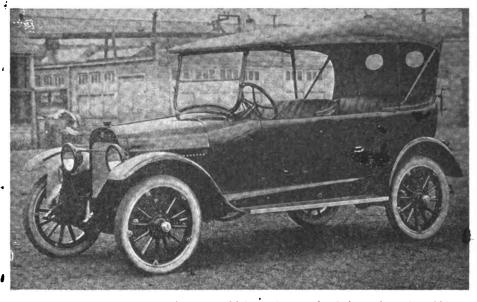
Has Seventy Changes in Design

Price Increased to \$985 —
Hand Brake on Propeller
Shaft — Engine and Rear
Axle Refinements Predominate — Body Design Improved

MBODYING more than seventy changes in design, the 1920 Maxwell car is now coming through production with five-passenger bodies, the other bodies to follow shortly. Most of the changes have been made in the engine, transmission units and front aris.

Probably the most radical of the improvements is the mounting of the hand brake on the propeller shaft instead of on the rear wheel drums which was the practice previously. This is a contracting band brake, the drum of which is mounted on the propeller shaft directly in back of the Thermoid-Hardy universal joint which is also a new departure in Maxwell practice.

A reduction of about 10 oz. in each piston has been effected, mainly through the elimination of the piston pin bush-



Maxwell five-passenger touring car, which has been refined throughout for 1920

CHANGES IN THE 1920 MAXWELL SUMMARIZED

Hand brake on propeller shaft Piston weight reduced Piston-pin bearings directly in piston Hot spot and ram's horn intake manifold Spark plugs closer to center of cylinder Four bladed cooling fan Ignition unit on gear case Castor type front axle One-piece steering column Four-pinion differential Driving pinion adjustable from out-Longer gear-shift lever Thermoid-Hardy universal joint Five-brush generator Vari-colored ignition wires

Horn button on top of steering wheel

Improved door locks

Larger radiator

Lower and longer exterior appearance

engine in place of the spring mounting formerly employed and the placing of the ignition unit on the gear case. The electrical units have been im-

ings. The piston pins now bear directly

of Chalmer's fame have been incorporat-

ed. In addition to these two important

changes in the engine, there are a few

minor alterations including the placing

of the spark plugs closer to the center of

the combustion chamber, the use of a

four-blade fan mounted rigidly to the

The hot spot and ram's horn manifold

in the cast iron of the piston bosses.

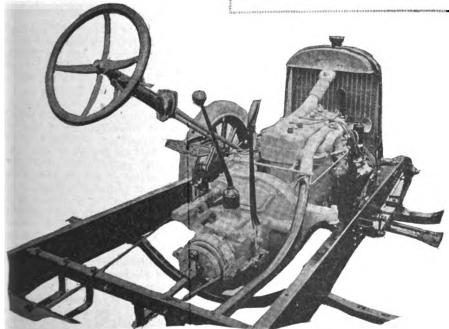
proved, the Simms generator still being employed, but instead of the six-brush type, the five-brush type with the odd brush for regulation in employed. The brush adjustment is on the outside.

The exterior of the car is altered in only a minor degree, yet it gives the car the impression of being lower and longer. The wheelbase is exactly the same and no change has been made in the body except in the door locks, which are now an improved hon-rattling type.

The radiator, however, is improved in appearance and also larger, having more radiating surface and about 2 qt. more water capacitq.

The front axle is now the conventional type with caster steering instead of the Le Morgue type formerly employed. To increase the wearing capacity of the axle, the steering knuckle spindle is larger, the steering knuckle bearings longer, and the steering column is now in one piece rigidly fastened to the instrument board to eliminate vibration.

The rear axle is also of improved construction throughout. In place of the three-pinion differential, a four-pinion differential is now used. The bearings are of larger size, the axle is larger, the wheel bearings heavier and the thrust washers also increased. In place of the rear spring being flexibly mounted so that it was free to turn about the rear axle housing and lubricated by a grease cup, this construction has been replaced by the conservative type of mounting in which there is no relative movement between the spring shackles and the axle.



Front end of Maxwell chassis, showing Thermoid-Hardy coupling for propeller shaft, the transmission brake, improved starter pedal and engine mounting

Two Problems in

SELLING FARM LIGHT

- Find Prospective Dealers
- Teach Them to Sell Farm Light

ND in One Western City a Distributer, Himself an Automotive Man, Is A Finding 50 Per Cent of His Dealers in the Automotive Field and Is Building a Live Organization That Is Selling Farm Light Sucessfully—The City Is Bloomington—The Dealer Is the C. U. Williams & Son Co.—The Man Who Tells the Story Is Manager Waldemar Michaelson of the Farm Light Department

THIS is a new business," says Michaelson. "It consists for the most part as yet of the field and the possibilities for development. So far no one has made a howling success of the business because the right men have not been picked. It's my job to pick better men than the other fellow, and that's what I am trying to do. You know, you can't buy dealers these days, you've got to make them. But in order to make them you must have promising material upon which to work. Let's see what we have to work with.

"First, there's the electrical supply dealer. At first blush one might think he would be the ideal dealer. He understands electricity and its applications. He knows the mechanical end, the wiring and so forth, and he has some conception of the kind of service which will have to be rendered. It would seem that here is a class of dealers already established which could take hold of the farm lighting plant and make good with it.

Electrical Dealer a "Dead 'Un"

"What are the facts? After thirty years of experience in the electrical field I find the average electrical dealer is anything but wideawake, and his knowledge and his ability to push and get trade are by no means synonymous. The average electrical dealer is still waiting for the procession to pass, not recognizing the fact that the band already is far ahead of him and that by the time he is ready to fall in at the rear there will be nothing left for him. As a rule the electrical dealer is a 'dead 'un' and may be left out of consideration.

"Who's next? It's a good stunt always to accept the experience of other men as a safe guide and to acknowledge the value of precedent. I belong to the Alamo organization. We built gas engines for years before we began build-

ing a farm lighting plant.

"When we began making engines our problem was much like it is to-day-to find the right man for the ultimate distributer. After experimenting around some we found him in the retail implement dealer. Nor do I think any man who went through the experience ever is likely to forget the time we had getting the implement man into line. But once we got him educated and left the engine business in his hands we had little further trouble. Now a gas engine is just as much a part of the implement dealer's stock as is a plow.

"Naturally, then, after failing with the electrical man, and remembering our engine experience, we turned to the implement man. We have been measurably successful with him, and to-day many retail implement dealers are making a success of the farm lighting business, and doubtless many more of them will succeed. Hence, among the dealers we are selecting now you will find many implement men.

Enter the Automotive Dealer

"But there is a third class of dealer to which the farm lighting plant should appeal with particular force and to which we are going for many of our dealers, and upon which we are depending to put our business across. I refer to the automotive dealer.

"Let's see why he should be interested: "The gasoline engine in the light plant compares with the gasoline engine in the automobile, only it is smaller. The automobile dealer knows the gasoline en-

"The generator on the light plant is essentially the same as the generator on the automobile, only it is larger.

"The switchboard on the light plant compares with the switches on an automobile.

"The wiring diagram of a house is

even less complicated than the wiring diagram of an automobile.

"Both light plants and automobiles have storage batteries which are indistinguishable.

"In the farm lighting plant we are not giving the automoblie dealer one single thing he does not already know all about.

"Even the service is essentially the same-differing only in the location and in the choice of tools.

All-Year-Round Sales

"Then, too, we are offering the automobile dealer something to sell at the season of the year when he has the most time and when his car business is at its lowest ebb. The late summer, the fall and all winter is the time in which to sell farm lighting plants, and this is just the season when the automobile dealer has the least to do.

"For all these reasons the automobile dealer should make an ideal and successful farm light dealer. And for these reasons we are going to the automobile dealer in our territory and we are putting him into the farm lighting business.

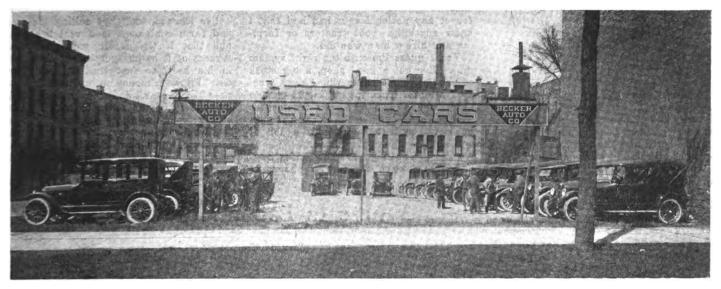
'Let's see how the score stands up to date. We have appointed about seventyfive dealers since January 1 last. Of these about half are automobile dealers and about half are dealers of other kinds. But while the automobile half stands as a solid phalanx of dealers of one kind, the other half includes implement dealers, hardware dealers, electrical dealers and special dealers, with even one lumber dealer included.

What to Look For

"The qualifications we look for in a dealer are aliveness, financial responsibility, reasonable familiarity with things electrical, the ability to visualize the possibilities of the farm lighting business, and the disposition to hop to it.

"We impress the fact upon our dealers that this is no side line or stop-gap they have taken on, but that it is a real busi-





Outdoor salesroom of the Becker Auto Co. of Grand Rapids, Mich. The company finds that it is now the greatest factor in the merchandising of its used machines

ness and unless they can understand and appreciate this fact we don't want to bother with them.

"Having found the man we think has these qualifications we proceed to educate him. We do not expect anything much from a dealer until after we have made him. Up to this time we have only the raw materials from which good dealers are made.

The Plan of Education

"Our plan of education is as follows:
"First, we sell the proposition to him
and sell him so hard that he stays sold.

"Second, we sell him a demonstration plant and convince him that the place to sell a farm lighting plant is on the farm. Hence it is necessary to take the goods to the market, and in order to do this he must have a demonstration car. This is made obligatory.

"Third, we then leave the dealer alone until he gets his plant. He is expected in the meantime to read thoroughly the manuals and literature we give him and to familiarize himself with the plant as much as is possible for him to do.

"Fourth, our special salesman calls on him, takes him with him into the country and sells a plant. This shows the dealer there actually is a field in which to sell and shows him how a sale is made.

"Fifth, thereafter the salesman must call on that dealer every two weeks to assist him in selling plants, to further his instruction and to show him how to maintain his service. In order that this may be possible the territory is subdivided into units so small that a salesman shall never have less than twelve dealers nor more than twenty upon whom to call. This means intensive cultivation of the field.

Farmer is Already Sold

"The fact is, the farmer already is sold on the light plant. All he needs is someone who will put the matter before him in the right way. We intend that our dealers shall be this factor, and it is

our job to educate them to the point where they will function properly. This is the theory and the plan upon which we are operating in building up our retail sales organization. Already results have been so encouraging that we are convinced we are on the right track."

C. U. Williams & Son Co. side-stepped the farm light proposition for a long time. At last, yielding to persuasion, the company agreed to take on the Alamo plant if the company would send a competent man to take charge of the department. Out in Omaha, at the Alamo branch, was Waldemar Michaelson, and the company reached out there,

picked him up and set him down in Bloomington with instructions to go to it.

Michaelson is well qualified for the task. He has been an electrical engineer for thirty years, was for ten years city electrician of Omaha, and for the last six years has been in the Alamo branch at Omaha.

He has been familiar with the efforts that have been made to develop the farm lighting business, and it is significant that in this instance, where he has full authority to pick his men, he is depending to the extent of 50 per cent upon motor car men to make good for him in his job.

Sell Used Cars Outdoors

The Display of the Becker Auto Co. in the Open Is So Impressive That the Prospect, When He Thinks of Buying a Used Car, Instinctively Thinks of the Becker Layout

THE Becker Auto Co., Grand Rapids, is devoting a great deal of time to the development of its used car department. It has recently opened an outdoor sales establishment which has been productive of quite a number of sales.

The outdoor salesroom is not a new idea, but Becker believes if it was more extensively used by sales agencies less trouble would be had in merchandising used cars. The Becker company is centrally located in the business district and thousands of people who were logical prospects for used cars passed the place daily but without ever stopping to think that the company had used cars for sale.

By prominently displaying them outdoors so that all passersby would necessarily have to see them, the company capitalized the idea that when one thought of purchasing a used car the first thing coming into his mind would be a picture of these used cars in this lot.

The result of the experience has been more than satisfactory. On good days, particularly Sunday, the salesmen in attendance are constantly busy. The lot is directly across the street from the regular place of business so that the cars can be driven out each morning and put back into the garage every night.

Graham on Highways Committee

NEW YORK, July 3—George M. Graham of the Pierce-Arrow Motor Car Co. has been appointed a member of the highways committee of the N. A. C. C., of which Roy D. Chapin of the Hudson is chairman.

The Ideal Tractor Dealer

(Continued from page 12)

Ames man was F. H. Lang, who handles the tractor business for Dunlap. He agreed with Haupert. He said he knew something about farming and that when Dunlap gave him the tractors to sell he found that he could have done very little unless he had happened to know what he did.

As a result of being able to talk to the farmer about the things the latter knew, he had, after a house to house canvass of his territory, listed about fifty farmers who were pretty sure to buy tractors this year.

The other fellow was G. E. Lebo, tractor man for Crary at Boone, who told Lang he had one on him because he already had cashed in on his knowledge of farming and that out of forty-three tractors the firm had sold he himself had sold twenty-three.

New Start Needed

Say, those fellows had my ears humming. I began to see where I would have to get busy and start all over again. I had thought that just because I had taken the trouble to find out the difference between the way to plant turnips and to harvest corn and that there was such a thing as gumbo soil here and there that I knew all about the tractor business and that all I had to do was to enter the orders.

And then a fellow named Brunner said something, and it was something, too. Brunner came from Newton where he handles the business of the Motor Sales Co. He, it seemed, was an old time implement man, and had had a lot of experience selling stuff to farmers. The point he made was that selling tractors was no creased pants, kid glove job but was real, hard work. It meant getting into a pair of overhauls and rolling up the sleeves. He said selling tractors was no such ladybug job like selling motor cars but took a man who was not afraid to get a little grease in his hair.

Fit the Farm

Then Tom Swaney from Carroll took a hand in the talkfest and said the big job in the tractor business, as he saw it, was to fit the tractor and the implements which were to be used with it to the job on the farm so that the farmer would be satisfied.

He said the tractor would be judged by the farmer by the work the implements did, and if the dealer did not know his business he would accumulate a bunch of trouble that would jar his whole system. Haupert said that if the dealer had a man on the tractor end of the business who was onto his job that this matter would straighten out.

Well, all the way back home I kept thinking of what I had heard. I knew I'd made a chump of myself with that harrow deal and I made up my mind that the thing for me to do was to forget any notion I ever had had that I knew anything about tractors or farming and hire a man who did.

Yes, I guess I'm onto the right system now. I've got a good shop, a big stock of repairs, a mechanic who knows tractors, a motor truck for getting to trouble quick, and a man who sells tractors so that when one goes onto the farm it goes on right, and thus prevents a lot of trouble less wise dealers have.

I don't let the grass grow under anybody's feet when the farmer phones in that his tractor has gone on the bum. I've learned, too, that selling tractors and farm equipment is a real business, and that if the dealer would make a success of it he has got to get that idea in his head so fast that it won't jar out. I'll make money on my tractor business this year, and big money, too, because I had the sense to take a little advice from the men who know. Then, too, whenever another hick comes in and

wants to know how to hitch a harrow

behind a plow I can do it, and I won't

hitch it on upside down, either.

Where Is Labor Headed For?

(Continued from page 9)

never be accomplished through a struggle between labor and management for in the last analysis their interests are identical and success for either must come from co-operation with the other. LABOR MUST SEEK WHAT IT DESIRES THROUGH THE VOTE.

Regardless of one's personal opinion as to the right or wrong of National Prohibition, it is a remarkable proof of what can be done when the public mind is awakened to new thoughts and changing conditions. Revenue laws, income taxes and the suffrage amendment are other excellent proofs of the changing attitude of legislators. Through a truer democratization of our people we have for the first time in history passed through a great war and equally distributed the cost in money and sacrifice among all classes of our people.

We have learned the potentiality of co-ordinated action and unanimity of purpose. THESE PRINCIPLES WILL BE APPLIED INDUSTRIALLY AND AFTER A BRIEF PERIOD OF UNREST, LABOR AND INDUSTRIAL MANAGEMENT WILL BE SHOULDER TO SHOULDER AS THEY WERE IN WAR TIMES AND THEIR ACCOMPLISHMENTS IN TIMES OF PEACE WILL BE JUST AS GREAT AS THEY WERE WHEN THE ONE MIGHTY EFFORT WAS EXPENDED WITH THE SINGLE PURPOSE OF VICTORY IN MIND.

AS LABOR HAS HARBORED MIS-CONCEPTIONS, SO HAS MANAGE-MENT. The day is past when management may expect from the worker a sincere interest in its welfare and manifest none in his. The employer who assumes a belligerent attitude toward the demands of his workers makes a colossal mistake. THE SQUARE DEAD MUST PREVAIL.

The interest of the workers must receive consideration. Without their confidence the employer is doomed to continued labor trouble. Recognizing that all industrial activities are in an unsettled and uncertain state, and recognizing further that this is not a surprising condition in view of the causes, let us assume an attitude of tolerance and co-operation for the other side.

LET LABOR BE REASONABLE AND MANAGEMENT EQUALLY SO. BOTH SIDES ARE WAITING FOR THE OTHER TO ACT AND IF THE BUSINESS MAN OR MANUFACTURER WOULD AVOID CONSIDERABLE TROUBLE HE WILL IMMEDIATELY SET ABOUT WINNING THE CONFIDENCE OF HIS WORKERS. How can this be done?

1.—By providing clean, pleasant working conditions.

2.—By paying fair wages based upon the value of the services rendered.

3.—Through the manifestation of a sincere interest in the welfare, education and advancement of worthy employees.

4.—By making the worker's salary produce more for him through any of several ways. Co-operative buying of commodities, bonus and profit-sharing plans, efficiency classes, legal advice, medical advice, protective societies, private banking associations, insurance, etc.

5.—Constructive educational methods among the workers.

6.—Promotion of co-operative methods among the workers and between employees and employers.

Such methods as these will not fail. Point out what their job will do for them and what they should do for it to keep it in a flourishing condition.

American workmen are men of brains. THEY WILL SOON REALIZE THAT A FAIR EMPLOYER CAN AND WILL DO MORE FOR THEM THAN ALL THE "RED" ORGANIZERS AND "AGITATORS" IN EXISTENCE. Thus will confidence come and remain and thus can we adapt ourselves and our industries to the changed conditions and secure a normality that will mean increased and continued prosperity uninterrupted by labor troubles.

TO RETURN TO "PRE-WAR" CONDITIONS WOULD BE AS CRIMINAL AS IT IS IMPOSSIBLE. WE ARE FACING A NEW ERA OF UNPRECEDENTED INDUSTRIAL ACTIVITY AND THROUGH AN ATTITUDE OF CO-OPERATION AND CONFIDENCE WE CAN REAP THE MIGHTY REWARDS OF A PRICELESS VICTORY.



"W HAT'S that?" demanded the Sennett distributer from St. Kenton.

"I said," repeated Reilly, the Callawassa distributer, "that the distributer who isn't doing quite a good bit these days to make something out of his dealers is walking backward with no place to go."

"You mean I should be a school teacher to my dealers? That the rest of the Sennett distributers should be fussing around teaching the A B

C's and the multiplication table to a lot of ex-mechanics and no-good salesmen?

And just then it seemed as though the annual convention of Sennett distributers would terminate in a battle royal with the honorable Cornelius J. Reilly with a lily in his hand.

"Wait—wait—wait—just a minute!" pleaded Jim the Sales Manager. "Don't get excited. Weather's hot—country's gone dry—everything's—oh gosh!" And he maneuvered his handkerchief around inside his collar and reduced his temperature not more than half a degree. It had the desired effect. The mob howl diminished to a low mutter.

Listen!

"Gosh, but you fellows can get all het up. What's the matter with you all? Don't get excited over this bird, Reilly. You've listened to him for years—"

"And probably will for years more," interrupted the semi-calmed St. Kenton-

"We hope so," said Jim, "but give him a chance. Let him bolshevik if he wants to. Listening is easy these hot days. Let him tell the whole story..."

him tell the whole story—"
"Sure!" said Reilly "All I said was
that the distributer who isn't doing quite
a bit these days to make something out
of his dealers is—"

"I got you the first time," again interrupted the man from St. Kenton.

"S-s-s-sh!" gestured Jim, reaching for that handkerchief.

"What I mean is this": Reilly went on.
"A distributer who takes goods in one door and shoots them out the other is nothing but a shipping clerk. If he doesn't do more than that he isn't of much consequence. He might as well quit and let the factory save the discounts by hiring a divisional shipping clerk to do the work at about thirty bones per."

Revolution seemed imminent, but Jim flattened it with his moist palm, and Reilly went on:

"There are a lot of things dealers

Teaching the Dealer to

Get Free Advertising

It's a Two-sided Proposition, Says Reilly, and It Gets the Dealer a Lot More Than the Advertising. It Also Is a Part of Every Distributor's Job

By RAY W. SHERMAN

ought to know and do to be better dealers, all of which would make business for all of us much better than it is now. If the dealers were better business men our distributing and service costs would be reduced and our sales volumes would be greater—so would our profits.

"But a lot of these things that dealers should do they don't know about. Somebody's got to tell them—and as near as I can figure the only available somebody is you and I and the rest of us distributers.

'Now-how's a fellow going to go at it. We can talk about system and sales effort and all that sort of stuff, but a big percentage of it never will sink in in a thousand years—and we can't wait that long. We need action within the next five years. The time is coming when it's going to be harder to sell cars than it is this year and when that time comes I want an organization in the Callawassa territory that will make the other birds on the Row look sick. I'm out for the House of Reilly and I don't care who knows it. I'll play fair with the whole trade-but I'll play like blazes for myself. When I can't play a real game in a big way I'll quit.

How To Do It

"Now—" and Reilly paused for breath, "—now—how are we going to get the dealer to do these things we want him to do and which we know will make more money for him. We must first get him into a frame of mind where he will accept our suggestions and operate along the lines that we know are good.

"So, now then, we come to the question of how to get him in this frame of mind. We can't do it by living with him because we haven't time. It would not do any good if we did. We must show him a way that will make a new man of himself—and must conceal from him the fact that we are making a new man of him."

"Very intrickette!" suggested the St. Kentonite.

"Not so very," Reilly continued.

"There's a fairly easy way out of the whole mess. To get him out of the sphere in which he now lives, and to get him to thinking along broader lines, we must get him to associate with people who will have that effect on him. That we can do by getting him interested in various activities, such as civic affairs, and so forth.

"Tell him that one of the grandest ways in the world to get free advertising and to get himself before the town in a big way is to belong to the movements which

are always in the public eye. Tell him to join the Chamber of Commerce, the Trade Association, one of the churches—if he isn't too much opposed, and any other movements that are in the public eye.

Gets the Result

"He is quite likely to fall for this free advertising stuff. If you can get him started, then appeal to some good business friend in some other line in the town to take the dealer under his wing as far as possible and help him along. Put him on committees. Make him work. Give him a chance to mingle with other business men, and, the first thing you know, the boy will begin to absorb some of the atmosphere of better business, and, step by step, you can get him working along the right lines.

"Every dealer should be identified with activities of this kind any way. We all should do it. It has proven valuable to me. Every time my name appears in a Chamber of Commerce activity the whole town knows it's the same Reilly who uses lots of newspaper space to advertise the Sennett car. It's civic loyalty—and free advertising. And now, old St. Kenton, you aren't as mad as you thought you were, are you?"

Whereat everybody laughed, including the St. Kentonite.

Lively British Market for American Cars

NEW YORK, July 3—The British market, which gives evidence of a growing demand for American cars, is in the field through the London & Midland Motors, Inc., for 5000 machines annually of the light 4 and 6-cylinder, 2 and 5-passenger type. A. J. Foster, representing the company, is in New York seeking through the N. A. C. C. and directly by contact with manufacturers to arrange for the shipment of the cars mentioned, together with 1 and 3-ton trucks. Right hand steering is specified for the passenger cars.



Used Car Report

New Activity of Detroit Dealers

NE of the features of the work being carried on by the Detroit Automobile Dealers' Association is the publishing of a used car market report, and although it has only been in operation for a period of approximately three months, the dealers are finding it valuable in the carrying on of their businesses. The plan that is carried out by the Detroit association gives local valuations on cars. The first of each month every member, who is a dealer in passenger cars, supplies the association office with a report on the sales price of all used cars sold during the previous month. This data is compiled and averages taken and the report is sent back to the members with as little delay as possible. This means that they always have a report which is up-to-date and, at the most, it cannot be more than thirty days old.

Card File 4 x 6 Inches

The accompanying card is a sample of the report as it goes out to the dealers. Each association member is furnished with a 4 x 6 in. file, which contains alphabetical guides, not only for the used car reports but also for new car prices.

Each make of car which is active in the Detroit market is listed on a separate card and the prevailing prices on 1916, 1917 and 1918 models are given. In case the dealers wish a report on an older model, this can be obtained by calling the association office.

The first three columns on the card headed "By the Dealer" contain the average prices, which the dealer in new cars of the same make has received for his own used cars. The other three columns, headed "All Other Averages," contain the average prices received by the dealers in all other makes of cars for these same models. This arrangement was put into effect, due to the fact that a new car dealer, as a rule, is able to obtain a higher price for his used cars than any one else.

Two Forms Used

The large form shows the method by which the dealers make up their reports. Each individual sale is not recorded but merely the average price that a certain model is bringing. This includes cars in all different conditions, but the average works out in such a manner that it represents the price obtained for a car which is in fair condition and has a ready market without much expense on the part of dealer in putting it in a sale-able condition.

The Detroit dealers find that this re-

	PERIO	-	<u></u>	lat, 19	9	
MAKE	MODEL	1915	1916	1917	1918	REMARKS
Dodge	Touring	\$350.	2550.	\$700 ·	385Q.	
Dodge	Rondster	350	550.	700	850.	
Dodge	3edon		ļ <u>.</u>	1100.	1300.	
Dodga Coupa				1100.	1300.	
Bulck	Touring		6EQ.	750.	1000.	
Bulck	Roadster		650	_ 750	1000.	
Oakland	Touring	_	450	575.	750.	
Oakland	Roadster				750.	
Hudson	Cab	.37	usa.	C). A D .	REPORT ON USED CAR PRICES
Huds on	Sport	_	DEL		FOR PERIO	D FND.
Huds on	Coupe	Litte 6		1916	HE DEAL	REPORT ON USED CAR PRICES DE ENDING ALL OTHER AVERAGE 1918 1918 ALL OTHER AVERAGE 1918
Rudson	Couring	~~~	Roade	600.	900.	1918 ALL OTHER AVERAGES
Maxwell	Touring		Coupe	600.	BOO	1100
Narvell	Commerc		M	650.	000	1100 650 1025
Name 11	Rondst	لا مع	m- T	000-	200	1 1000.
Dort	Touris		Dad.	150.	_ /	200
Rec	Tours "Pc	300	Line L			
Cadillac	Phne "	Lun			180	700
Cadillac	Tour	Road	-	550	650	·
Cha lmers			+	\perp	600	700
	Coupe		_			
Saxon	Touring		400.	600		
Pord	Touring		300.	450.	475.	
Pord	Sedan		500.	700	750.	With Starter
ord	Coupe		350	500	5 50	With Starter

The Detroit reports are prepared from information furnished by the dealers to the association secretary. The dealer reports on the large card and the completed general report is given to him on the small card

port is doing much in the way of eliminating the "shopper," for allowance prices do not vary to a great extent, and the buying public is fast getting acquainted with this fact. It is proving a big help to smaller dealers, who are able to profit by the experience and advice of those who are doing a large business and means a larger profit and a better business for every one of the members of the association.

A similar report is now being worked out for the truck dealers, but this will have to be changed in several respects, in view of the fact that the average motor truck is not traded in on a new truck until it is at least three years old, and the commercial car report will necessitate giving more details than the passenger car report.

Tractors Make Oil Sales

Editor Motor World: I have been giving a good deal of attention to development of the tractor lubricant busi-

ness. There are a large number in use in the South and they are proving a large factor in the increased consumption of lubricants. In fact, now in some sections it is a greater source of oil consumption, both fuel and lubricating, than any other class of machinery, and is growing by leaps and bounds. Very interesting work.—W. M. Davis, Supervising Engineer, Lubricating Department, Texas Co., Houston, Tex.

Make Money in 1919 and 1920

Editor Motor World: In regard to your magazine, to which I have been a subscriber and ardent reader for some time past, I would like to say that I have yet to find a magazine that is in any way superior to the Motor World. It is the most interesting and instructive automotive journal I have ever read and I think anyone that is in the business and doesn't read it is surely missing a great opportunity to "make money in 1919 and more money in 1920."—Robert W. Leeman, North Bergen, N. J.



THE LAW

By George F. Kaiser

PERPLEXED

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

The Question of State Lien Laws

Editor Motor World: In Motor World issue of May 28, answering Deerfield Motor Co., Deerfield, Kan., relative to holding or picking up a car for repair bills, you replied in substance:

Under the Kansas law you have the right to hold the car for your bill while it is in your possession even though there may be a bill standing against the owner for repairs. Now, should the owner of the car bring the same into your place of business later, for further repairs, would the garageman have the right, especially under the Texas law, to detain the car for the old, as well as the new, bill for repairs?—Towery Motor Co., Crockett, Tex.

Answer—The best way to keep out of trouble if you are located and doing business in any one state is to disregard entirely the laws, and especially the lien laws, of other states. As you are doing business in Texas, the Kansas lien law does not concern you.

As to your question, although there is no special provision for a garageman's lien in Texas, mechanics, artisans, etc., have a lien for any articles created in whole or in part by their services and for labor performed upon the same. Under Article 5665 R. S. 1911 there is a special provision for liens for work on vehicles. It has been held that though a garageman may avail himself of the lien given under these statutes, he loses the lien by giving up possession of the property. (Malcolm vs. Simms, 164 S. W. 924; Caldwell vs. Supply Co., 158 S. W. 1631; Ford vs. Freeman, 168 S. W. 80.)

Not Unlawful to Refuse to Sell

QUITE some time ago a question was asked on this page: "Could a manufacturer refuse to sell motor cars except through dealers?" In answering that question a decision of the Federal courts in New York was quoted to the effect that it was decided in that case that it was not unlawful to refuse to sell to retailers under either the Sherman act or the Clayton act; that a rule that a trader may retake and offer to any person who wishes to buy because he does not like the buyer's methods of business or because of some personal difference or for any other reason that appeals to him do not constitute an unlawful act.

The Supreme Court of the United States has just recently upheld this right

of refusal to sell, and Mr. Justice Mc-Reynolds on June 2, 1919, delivered an opinion to the effect that:

The purpose of the Sherman act is to prohibit monopolies, contracts and combinations which would probably unduly interfere with the free exercise of their rights by those engaged or who wish to engage, in trade and commerce—in a word, to preserve the right of freedom of trade. In the absence of any purpose to create or maintain a monopoly, the act does not restrict the long-recognized right of trader or manufacturer engaged in an entirely private business freely to exercise his own independent discretion as to parties with whom he will deal. And, of course, he may announce in advance the circumstances under which he will refuse to sell.

Decision Regarding Property Ownership

In a recent Iowa suit against a partnership the question was raised as to whether or not certain property was owned by the partnership or by one of the partners individually.

On July 24, 1917, an attachment was issued against two automobiles. The same day one of the members of the partnership which owned the automobiles executed a bill of sale to a third party.

It appeared that some years prior to the attachment the partners started in the automobile business at Logan, Iowa. One partner took hold of the mechanical and repair department and the other took charge of the "front end." The business of the partnership was to buy and sell automobiles and to make repairs. A short time before the attachment was issued the repair department was sold out. The firm owed two or three thousand dollars to a bank and a thousand dollars to the party who issued the attachment, which latter sum had been paid on a car not yet delivered.

The building contained a Chalmers and a Ford automobile. The court decided that as the partner who had attempted to execute a bill of sale had bought supplies in the firm name up to within a few days of the attachment, and had paid for cars by the firm checks, the cars belonged to the firm and the attachment was proper. Lattar vs. Olson and Longman, 172 N. W. Iowa 163.

Unsigned Contract Held Valid

The Supreme Court of Montana recently handed down its decision in an interesting case where the agreement between the parties, who were distributer and sub-dealer, was spelled out from the correspondence which passed between them.

Although according to the contract used by the distributer it was provided that it was not valid until signed by its manager, the court nevertheless decided that having been accepted and acted upon by both parties, it was just as valid as if it had been signed.

The distributer and sub-dealer had entered into a contract for the sale of twenty-five cars to be delivered from time to time. In the distributer's correspondence with the sub-dealer it clearly appeared that the distributer regarded the dealer as a duly authorized sub-dealer having written with regard to cars and deliveries. Steinbrenner vs. Minot Auto Co., 180 Pac. Montana 729.

Ouestion of Breach of Contract

Delivery of an automobile more than two months after it is promised is not a compliance with the contract to deliver a car "on or near about" a certain date, according to the Court of Civil Appeals of Texas in a recent case.

Suit was instituted by a customer against an automobile dealer for damages claimed for alleged breach of contract to sell a seven-passenger 1912 Stoddard-Knight car. The contract consisted of a letter written by the dealer in answer to a verbal order given by the customer.

It was provided that in part payment for the new car an old car given by the customer should be received at a valuation of \$1800. The used car was thereafter delivered to the company, which agreed to deliver the new car "on or about Sept. 1, 1912." It was not delivered until Jan. 15, 1913. Meanwhile the customer had declared the contract at an end, and when the dealer tendered back the old car it had received the customer refused to take it back. It was decided that the seller had broken the contract because of a long delay in making a promised delivery and having used the old car as its own, it was under an obligation to pay the buyer the value of the old car as found by a jury.

The court said that "in a case where a person has already turned in his automobile as part payment for another he naturally desires the performance of a promise to deliver a new car at or about a certain time and a failure to make delivery is a breach of contract and authorizes suit." Alamo Automobile Co. vs. Smith, 211 S. W. Texas 804.

SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

Plan for Large Service Station

Editor Motor World: I would like to have you give me some ideas regarding the building and equipping of a repair garage, paint shop, woodworking shop and battery and radiator repair shop. There would be a flest of seventy machines to take care of consisting of fifty assorted passenger cars, fifteen large trucks of 21/2 tons and over and five light trucks. Nearly all of them would be in service garages where they would have minor adjustments attended to and also be lubricated. Two light trucks, four heavy trucks and four passenger cars would stay in this proposed garage.

Space is limited to the cost of building only. Have lots of room and expect to pay thirty thousand dollars to build and equip it. These trucks get very hard service, as do the cars, and we expect to be able to do all repair work on them here. Expect to put in a lathe, speed lathe, large and small drill presses, emery stand, buffing stand, shaper, grinder for cylinders, forge, welding outfit, air compressor, two engine stands and not be crowded for room in the machine shop. In the woodworking room there will have to be a band saw.

The battery room and radiator repair room ought to be together, if not one, I believe. I also thought that it would be a good plan to keep the woodworking room and paint room and possibly the wash rack separate from the rest of the shop, perhaps in a separate building. There would also have to be a gas station, office, tool room, stock room, and space for changing tires, etc. Don't expect to do any repairs on tires, but will probably expect the stock man to repair the tubes.

What do you think of having a partition between the machine shop and pits and benches to keep the mechanics out of the shop proper? I would think it would be advisable to have the machinist do all the machine work for the mechanics. What do you think of it?

* Also expect to fill all cars and trucks that stay here from a portable tank. The large trucks are about 30 ft. long overall.

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

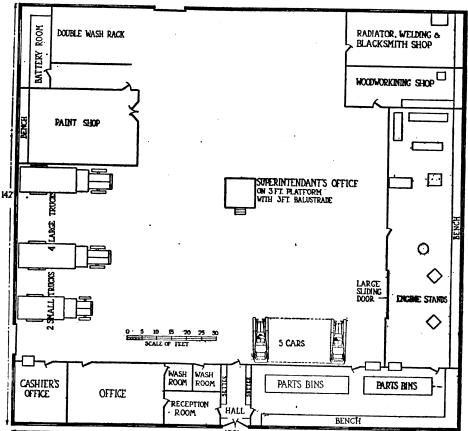
What I would like to have mostly is an idea of equipment needed to take cars of these machines and how to arrange it, or, in other words, a good

floor plan. Efficiency is a large thing to consider and cost is secondary.

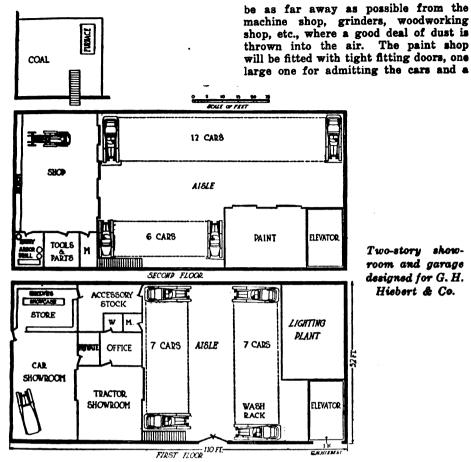
There are no roads or streets to take into consideration, and these seventy machines, with possible additions, are the only ones to be taken care of.—P. H. Redgrave, Bakersfield, Cal.

Answer—We have drawn a plan for a one-story service station on a lot 150 ft. front by 142 ft. deep. You stated in your letter that size was no object; consequently we have adopted this size. Inasmuch as nine-tenths of the work which will be done in this station seems to be repairs and service, rather than storage, we have laid the plan out with the service idea predominant.

The executive office, cashier's office, wash rooms, etc., have been placed to the left of the hall at the front of the building, and the parts and tool room have been combined to the right of the hallway. Your idea in keeping the mechanics entirely out of the machine shop is a good one. We have provided for



Service station 150 x 142 ft. equipped with paint, woodworking and repair shops, for P. H. Redgrave



Two-story showroom and garage designed for G. H.

Hisbert & Co.

this by making the machine shop 25 ft. wide along one side of the building, this to be separated from the rest of the shop by a wooden partition 3 or 4 ft. high, extended up to 8 ft. high by wire aetting. This will not interfere with the light going to the rest of the shop and will keep the mechanics outside of the machine shop, except on business, and their business can all be transacted through the small door at the center of the shop, and will consist in bringing material in or taking it out.

In case it is necessary to bring very large objects or even a truck into the machine shop, this can be done through the sliding door. We have combined the radiator, welding and blacksmith shops into one as this work is all more or less similar and probably some of the men can work equally as well on one of these articles as another. If your building is in a city, it is quite probable that there will be some sort of building restrictions which will make it necessary for you to erect a fireproof wall between the blacksmith shop and the rest of the shop. By combining these three shops in one it will only be necessary to build one wall and have one fireproof door. This shop is large enough to admit one or even two trucks.

The woodworking shop has been made narrower but it quite long enough to take an entire body inside for repairs or rebuilding. It is hardly possible that it would be necessary to take the whole truck in as the body would be lifted off.

The paint shop has been placed on the

other side of the building, so that it will

small one for the use of the men in going in and out. The battery room is a long, narrow room with plenty of bench space to set the batteries on. The double wash rack can be placed right in next to the battery room.

An innovation has been introduced in the location of the superintendent's office. This is placed on a 3 ft. raised platform with a 3 ft. balustrade, and from this position the superintendent can have his eye on every point on the shop, with the exception of the blacksmith shop, paint shop and battery room. which of necessity will be enclosed. He can at once locate any job with which he is familiar, keep track of the men and make note of all vehicles entering or leaving the building, and can exercise a great deal more direct supervision over the plant than if he was located out of sight of the work.

The parts room, located in the front of the building, has two windows, one to the machine shop and the other to the general shop. The windows are so close together that one man can easily take care of both windows, supplying the necessary parts and tools, etc., as required. If it is desired to extend the sale of parts to outside parties, an additional window can be installed opening into the hall, and if this service is infrequent a push-button and electric bell can be used to call a man to this window.

A Two-Story Building

Character of business-Sales, storage and service of cars and tractors.

Details wanted—Building 52 x 100 ft., two stories, garage, showroom for cars and tractors, a paint shop, repair shop, office and stockroom and accessory store. Possibilities of building two story and place the paint shop and repair shop upstairs. Space of about 20 x 30 ft. is to be set aside on the main floor for the town electric light plant.

Name-G. H. Hiebert & Co., Winkler,

Answer-We believe that it is advisable for you to build a two-story building as your plot is hardly large enough to accommodate all the departments on a single floor, and we have therefore drawn a two-story building.

About the only detail calling for explanation on this plan is the presence of cars directly in front of the elevator on the second floor. These cars should be ones that are absent during the day so that there will be storage space for cars moving on and off of the elevator.

Away Off in Australia

Editor Motor World: I take Motor World whenever I get the chance. I very much appreciate the information contained in it.-Neil J. Whittington, Brookton, Western Australia.

Kansas Bumper Wheat Crop Beosts Tractors

KANSAS CITY, July 1-The great wheat crop, which promises to reach the golden height of 250,000,000 bushels, has begun to flow out of Kansas, setting in motion a reverse stream of "ready money." Business in general is due to profit by the bumper crop, but the most direct benefit will go to the tractor business, which so far has had an unequaled year in sales throughout this territory.

There is no longer any doubt that the tractor is indispensable on large farms and judging from recent purchases in Kansas City and the neighboring locality by small farm owners, they, too, are convinced of its value.

The Avery Tractor Co. has sold more than 1000 machines. A large number of horses have been killed in the harvest fields, due to the long hours which they have been compelled to work. As a result the farmers have found it necessary to send in hurry orders for tractors to take their places.

The Kansas Moline Plow Co., handler of tractors, is shipping from ten to twelve every day. An order from Millers Bros., Pittsburg, to this company for three tractors contained the information that the large tractors in that locality were working day and night and were cutting more wheat than sixteen mules. The tractors going into Kansas are sent by the carloads while those sold in Missouri are for the most part in more reserved lots. J1200c

Repairshop Shortcuts

From Motor World Mechanics

No. 2197—REPAIRSHOP TIRE RACK

A tire rack for a vulcanizing shop is made of a piece of 2 x 4 from which a number of T-hooks are suspended. Any number of hooks can be made up, out of %-in. rod with a lag screw welded on where the rod goes into the 2 x 4. These are suspended from the ceiling or may be attached to the wall or to posts as the case requires. The rack. will hold tires ready to be repaired and those that have been finished are put on the other end of the line.—Cambridge Tire & Vulcanizing Co., Cambridge, Ohio.

No. 2198—HANDLE FOR TURNING DOWN GREASE CUPS

A convenient handle for turning down grease cups is made by cutting the end off a broom handle and cutting a slot in the flat end so that the nib of the grease cup will just fit in the slot. This will enable grease cups that are more or less inaccessible to be turned down with ease.—Robert Leibrich, Hercules Electric Co., Indianapolis.

No. 2199—SPRING TOW POLE

A spring pole to keep the tow rope up off the ground when the towed car overruns the towing car, is made from any flexible material, steel or light wood. It is attached to the rear frame of the towing car and when the tow rope is stretched out the pole bends down, but when the tension on the tow rope slacks up, the pole, which is attached to the center of the rope, springs up and lifts the rope off the ground.—Kenyon's Garage, New London, Conn.

No. 2200—RADIATOR TESTING PLUGS

Radiator testing plugs are made out of corks the right size to fit the radiator to be tested. One of the corks should have a hole bored through it, the hole beingjust a trifle smaller than a tube valve which is screwed through it. After corking up the other openings, a tire pump is attached to the valve, the radiator put into water and some pressure put into the radiator.—E. B. J. Roufs, Winsted Garage, Winsted, Minn.

No. 2201—QUICK DETACHABLE LICENSE CLAMP

A quick acting clamp for attaching automobile dealers' license plates to cars is made like a C-clamp with one leg longer than the other so that it can be riveted to the license plate. A piece of rod is bent at right angles and threaded on one end, this going through a threaded

Make a Dollar

H OW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay you a dollar for every one accepted for publication.

The only requirements are these:

- 1—Describe the shortcut briefly but clearly, in few words.
- 2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.
- 3—Write on ONE side of the paper only.
- 4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

hole in the upper part of the U.—R. D. Peebles, Bridgeport, Conn.

No. 2202—SPARK PLUG TEST SET

A testing set for spark plugs is made from a few feet of ordinary ignition cable and a few clips made from spring clothes pins. For a four cylinder engine four leads will be required and for a six cylinder engine six leads will be required. The leads are all connected together at the center. The clothes pins are prepared for use by putting a sheet of copper on one side so as to make contact with the spark plug terminal, the sheet copper being soldered or otherwise

connected to the cable. To operate, one of the leads is connected to some grounded part of the engine and the other leads clipped to the plugs. One plug will be left ungrounded and this is the cylinder being tested. The plugs are tested in turn by moving the leads from cylinder to cylinder.—George S. Gage, Springfield, Mass.

No. 2203—HOW ONE MAN CAN LIFT THE ENGINE

Lifting an engine out of a chassis can be made a one man job if the use of a block and fall can be had. The rope is wrapped around one of the front wheel hubs and that wheel is jacked up clear of the floor. The wheel can then be used as a windlass to pull on the rope and little muscular effort will be required, most of the operator's energies being devoted to guiding the engine out of the car.—J. J. Walker, West Salem, Ohio.

No. 2204—REPLACING FORD TRUSS RODS

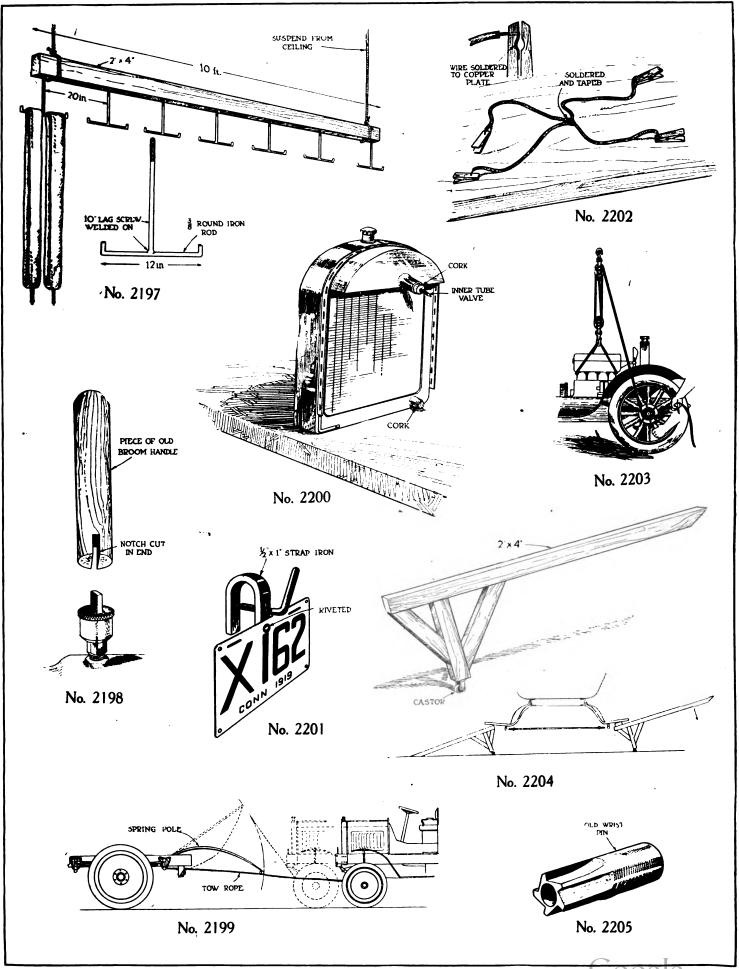
Ford truss rods are replaced by lifting up both running boards to take the strain off the old rods and spring the running boards out enough to slip the new ones in place. A quick-acting jack for this purpose is made from some pieces of light lumber and a castor. Two of these jacks are placed under the running boards, one on each side, the handles pushed down to the ground and they will then stay there. The step is lowered by slowly raising the handle.—Joseph Giroux, Booth Cycle & Auto Supply Co., Rochester, N. Y.

No. 2205—AN IMPROVISED REAMER

An improvised reamer for reaming out piston bushings is made from a piston pin, the flutes being cut on one end of the pin. These can be cut on a milling machine or lathe if the pin is first softened and then hardened after the cutting or the grinder can be used without the necessity of softening.—V. M. Roberts, Mulberry Grove Auto Shop, Mulberry Grove, Ill.

New U. S. Tire Branch Manager

NEW YORK, July 3—A. L. Wendover has been appointed manager of the New York branch, United States Tire Co., succeeding G. C. Gaillard, who has been assigned to the executive offices. Wendover, who will work with District Manager E. S. Roe, with headquarters at 1790 Broadway, began as a tire salesman for Morgan & Wright, joining the U. S. forces when they took over the M. & W. Digitized by



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Editorial Observation

Insurance That Is Sure

If a customer is to operate his motor car with complete satisfaction he must be satisfied with his insurance, as well as with service given by the dealer, the weather supplied by the weather man, and many other things.

As far as possible the dealer should counsel with and advise the car owner and retain every possible measure of good-will. On the question of insurance it is possible for the dealer to make suggestions, at least, which may aid the car owner in placing coverage on his car.

Within recent times there have arisen in the insurance field several forms of coverage and methods of operating, all of which, taken together, may result in dissatisfaction to the car owner if he isn't fully informed on the subject.

It is stated in well informed circles that there are brokers in insurance who do not, when placing insurance for a car owner, state fully the circumstances in the case. There are several rates for insurance, but the rates generally provide for different degrees of coverage, so that the man who thinks he is getting "cheap" insurance may in reality be getting "less" insurance.

For instance: Certain restricted forms of insurance do not protect the car owner when the car is driven by the garageman or repairman. They do not coverage liability if "reasonable" driving is done by some person other than the owner. Unless the insurance specifies that his wife may drive, the husband may be liable in case an accident occurs while the wife is driving and the insurance may be of absolutely no value.

There are many ramifications of the matter, and the dealer may render a real service by so stating to the car owner who is insuring for the first time. Possibly, also, owners who have insured for years without accident may be appreciative of counsel on this subject.

It is not necessarily a new subject. As one broker says: "It is an old story about which a great deal can be said, none of which will be new. It is the story that the big, decent broker has been telling for years, which is that 95 per cent of the brokers are really nothing more than men out of a job who are soliciting insurance without the slightest knowledge of what insurance is.

"We do sell 'restricted coverage'," he states, "but we never sell it until we understand exactly what it is, and in the letter which goes to the assured with the policy we reiterate the explanation in writing so that there can be no question." The question, therefore, that concerns the car owner is whether he really knows what kind of insurance he has. Suggest to him that he make a list of the possible accidents that might happen under various conditions with driving by those persons who customarily drive the car and that he then submit this list of questions to the broker or company with whom the insurance was placed.

It is not unlikely that a good percentage of car owners might find out some startling things about their insurance. They might find that they are saving \$5 or \$10 a year at the risk of becoming liable for heavy damages in case accidents happened under conditions which the owner believes are covered in his insurance.

One consideration, of course, is that the car owner should deal with a reliable broker. As to who is a reliable broker is for the car owner to determine. The thing the car dealer can do, however, is suggest that the car owner investigate the insurance, if he has not already done so, make a list of questions and put the matter plainly up to the man from whom the insurance was bought, insisting on a reply in writing.

Service consists in doing more than fixing broken parts. It implies a more or less paternal interest, which is especially beneficial to the dealer when it costs as little as does a word of advice.

Furthermore, the same thing applies to the dealer's own insurance. Do you know exactly what yours covers and DOES NOT cover? Why not make sure, so that there may not be some day a rude awakening with the discovery that you did not buy what you thought you bought?

Make the Situation Plain

NE of the misunderstandings of workmen generally seems to relate to the difference between their hourly wage and the hourly charge made by the shop or service station. Many—and probably a big majority—have some sort of idea that if the workman gets 50 cents an hour and the customer pays \$1 an hour the boss has made 50 cents.

Nothing is farther from the truth. Some employers in just such a situation are losing money instead of making 50 cents an hour profit. It might help considerably if the employer were to let the workmen know the truth.

But first two things must be done, 1—The employer must gain the confidence of his workmen by a campaign with that end. 2—He must KNOW exactly how much there is of profit in every hour of labor sold, and this requires the keeping of costs.

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LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Play Fair with the Dealer

Editor Motor World: This refers to an editorial appearing in your issue of May 21, under the caption "Play Fair with the Dealer." You recommend that the manufacturer guarantee stocks in the hands of the dealers and jobbers against decline. We cannot agree with your idea on this subject.

Guaranteeing stocks against decline is a dangerous business practice at any time, particularly now. In fact, why should a manufacturer make such a guarantee? We cannot obtain a guarantee of this nature from the concerns

from whom we purchase.

The price of steel was recently reduced. You can readily imagine the kind of replies we would have received had we written the various steel mills, asking for a credit covering the stock of steel we had on hand at the time of decline. If the manufacturer cannot obtain a guarantee against decline from those from whom he purchases, how can he guarantee his products in the hands of the jobbers and dealers against decline?

During the past few years, manufacturers have raised their prices several times. At the time of such raises, jobbers and dealers throughout the country undoubtedly had on hand large stocks purchased at low prices. Is it not just as reasonable for a manufacturer to expect a jobber or dealer to send him a check for the difference between the low and the high price, as it is for the jobber or dealer to expect the manufacturer to credit him when the prices are declined?

Poor Policy to Load up Dealers

We agree with you that it is poor policy for a manufacturer to make special effort to load up the dealers and jobbers and then reduce prices. No diplomatic manufacturer would handle a reduction in this manner. On the other hand, we cannot possibly see any merit to your recommendation that manufacturers guarantee stocks against decline, and if you will give this matter your serious consideration, we believe that you will agree with us. We should like to hear further from you on this subject.—B. D. Zimmerman, Milwaukee Engine & Supply Co., Milwaukee, Wis.

Answer — The particular point we want to bring out in the editorial to which you take exception in your letter of May 25, related to the over-stocking of dealers prior to a decline in price. As a general practice, we would not want to go on record as saying that a guarantee of price is good business. There is a great deal of merit in what you say

about your inability to secure guarantees in price from those from whom 'you purchase the material out of which you make your merchandise.

Price Cut After Loading Up

At the time this editorial was written, complaint had been made that certain tire manufacturers had gone out and stocked up dealers and then immediately cut the price from under the dealers. The margin of profit in the tires the dealers were selling was so small that he stood to lose money, and that, we believe you will agree with us, is not fair. On the other hand, many of the tire manufacturers, and we do not know but all

What Do You Think?

Editor Motor World: Thank you very much for your kind letter of the second which I just received. I had often intended writing your editorial department out of curiosity to find out why it is necessary to print so much kindergarten stuff in Motor World. A great deal of space in each issue is devoted to things that every garageman or mechanic knows and that really appear foolish in print.

Is this because your subscribers demand it, or is it caused by lack of contributions? Your paper is certainly fine and I would not be without it, but some of the short-cuts and shop hints seem to be from men who are rank beginners and who thing they are doing something when they devote a lot of effort in telling how to build a bench or something of that sort.

After receiving your letter I feel at liberty to contribute again and shall do so at an early date.—A. G. Albrecht, Midway Auto Exchange, St. Paul, Minn.

of them have now taken this attitude, guaranteeing their dealers against decline in price, and we believe we have nothing that is not common between us when we read over the last paragraph of your letter, which is practically all we desired to bring out in the editorial that appeared.—Editor.

Plea for Electric Control

Editor Motor World: At a recent meeting of the Chicago Garage Owners' Association the enclosed resolutions were presented by the Electrical Division and unanimously adopted. Knowing that you are interested in the various activities of our association, I am submitting them for your information.

As you perhaps know, the calling for and delivering of electric cars in this city has been something over which the garagemen have had no control. The practice was so thoroughly established in the early days that it has been difficult to break away from it.

The average "hiker" is a speed maniac and wants to pass every gas car on the road. This is very hard on the car equipment and tires and costly to the garagemen and car owners.

A little over a year ago there were about 39 electric car garages in Chicago. A number of them have gone out of business within the last year so that there are now only about 20. The expense of damages to cars and the dissatisfaction caused by the damages they were required to pay while cars were being handled by them is chiefly responsible for their decision to eliminate the garaging of electric cars. They would sooner handle gas cars rather than have the annoyance and expense of the electric car business.

The officers of our Electric Division, believing that this question was of vital interest to the manufacturers and dealers of electric vehicles, inasmuch as it affects the utility and service given by their cars to the public, drew up the attached resolutions and are causing them to be sent to all manufacturers and dealers with the hope that something can be done to relieve this condition. May we have your co-operation in this movement?—Chicago Garage Owners' Association, Fred Daniels, first vice-president.

Electric Garagemen's Resolution

Whereas, The damage and destruction to electric pleasure vehicles arising through the carelessness and reckless operation of the same by employes of electric garages is one of the principal deterrents in the extension of the sale and use of electric vehicles; and

Whereas, The proprietors of electric garages are compelled to sustain large losses on account of claims made by the owners of electric vehicles garaged by them, for the damage done to tires and batteries as well as the mechanical parts of said automobiles, by the alleged carelessness of garage employes (commonly called "hikers") in the operation of these cars at an excessive rate of speed while calling for and delivering

same between the residence of the owner and said garage; and

Whereas, It appears that an electrical or mechanical device can be installed on such pleasure vehicles as standard equipment, whereby by the use of a master key the operation of such vehicle by other than the owner, with the possession of said master key, or by some person duly authorized by the owner to possess same, at a speed greater than that commonly known as second speed or third speed, can be prevented; now, therefore,

Be It Resolved, by the members of the Chicago Garage Owners' Association, Electrical Division, in regular meeting duly assembled, that this association do petition each and every manufacturer of electric passenger vehicles in the United States to perfect and adopt as standard equipment some electrical or mechanical device to limit the speed of electric passenger vehicles, when operated by other than the owner thereof, with a key or other instrument permitting the operation at the maximum speed; and be it further

Resolved, That the President of the Chicago Garage Owners' Association, Electrical Division, do appoint a committee of its members to present these resolutions to such manufacturers of electric passenger vehicles and to co-operate in the development and adoption of such corrective device or devices.

Believes in Cost Accounting

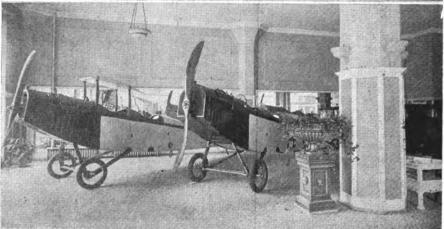
Editor Motor World: We thank you for your letter of June 19, and also for the Summer Merchandising number of Motor World. We are glad now we wrote for it, for we found it both interesting and instructive.

The one department of your magazine that is, I think, worth more than the rest is that devoted to better accounting for garages. So many, many dealers and garagemen do not know what their goods cost them or what it costs them to do business. When they get their costs so that they know what they are, it will do away with an awful lot of price cutting, and also with overcharging customers for certain goods.

In our business, we keep accurate cost of every article. When it is sold, it is entered on a "Daily Distribution of Sales Sheet" under its proper department. Each department has two columns-one for entering costs and the other for selling prices. At the end of the week, each department is totalled, both costs and sales, and entered on another sheet which shows the gross profits for each department for the week, and the total gross profits. Below we itemize our estimated expenses, being careful that these are high enough, and in that way know how much we made or lost the previous week. It is also useful in comparing one week with another.

Another advantage we find in figuring our profits is that we can figure our stock on hand in about three minutes, and not be out more than \$15 for every \$1,000 worth of stock. By being able to figure our stock quickly like this, we need never run the risk of being underinsured; we can get out a statement for our banker on short notice; and we can always check up our actual stock when we take it in detail. We also run a perpetual inventory, and check this with the actual stock about once a week.





Above—Motor cars and airplanes share show space on Chicago motor row Below—How Levy clips the wings of his birds for display beside the Buicks

This is not very difficult if you do a little each day.

I hope I have not taken up too much of your time, but this cost accounting is one detail of business I have great faith in.—The Lee Auto Supply Co., Lethbridge, Alta.

Boise Organizes

Editor Motor World: The firms in this city who are interested in the automobile industry have formed an association, and we appreciate very much the assistance rendered by you in aiding us in forming such an association, and at our last meeting a resolution was adopted expressing to you the thanks of the members for your assistance along these lines.

I am enclosing a copy of our articles of incorporation and by-laws, in which you may be interested.

You have been so kind in favoring us, should the occasion arise and you are in need of assistance in this locality, please feel at liberty to call upon the trade association for such assistance.—Boise Automobile Trade Association, by Jay M. Parrish, Manager, Boise, Idaho.

Read With Great Interest

Editor Motor World: I wish the best success to Motor World, which I read with great interest each week.—T. E. Townsend, General Manager, Lumberton Motor Car Co., Lumberton, N. C.

Demand Better Used Cars

Editor Motor World: In regard to the sale of used Ford cars in Bloomington, at the present time, wish to advise that we find the demand unusually good. We have been able to secure on an average for Ford cars in ordinary condition, the following prices:

1914\$	157	to	\$225
1915	225	to	250
1916	275	to	300
1917	300	to	350
1019	250	to	475

These prices are considerably higher than has heretofore been obtainable owing to the present high price and scarcity of new Ford cars.

Purchaser More Careful

The merchandising of used cars is somewhat different to-day than it was a year or two ago, as the average purchaser pays more attention to the condition of the engine and tires and mechanical parts of the car and is not willing to pay fancy prices for a goodlooking car which is deficient in the above mentioned parts.

It appears to us that at the present time there is more money to be made in second hand cars than ever before. The average customer is willing to pay full value for what he receives.—Bloomington Used Ford Market, L. Eldridge, proprietor, Bloomington, Ill.

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BETTER MECHANICS

No. 110

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the sixth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car.

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

THE usual trouble with a transmission that is brought in for overhauling is worn bushings which allow the drums to wobble. To rebush the drums requires the complete dismantling of the unit.

1-The front universal ball cap with the bearing included will no doubt have been removed before this, but it should be fitted up to the rear end of the driving plate shaft to see if there is any looseness. If there is, a new ball cap with new bearing should be installed when the transmission is assembled. The bands will slip right off the drums to the rear.

2-In most cases it is not necessary to entirely disassemble the parts from the

This Week

Overhauling the Transmission

transmission driving plate assembly and the spring, pin, etc., can be left as they are.

3-Remove the locking wire from the screws that hold the transmission driving plate to the brake drum and remove the screws.

4-The unit is then tipped over dropping out the clutch push ring and the clutch disks.

5-Remove the lock stud that keys the inside clutch drum.

6-Remove the drum and key with a puller.

7-The drums together with the triple gears can now be slipped over the shaft, starting the shaft if necessary with a babbitt hammer.

8-Pull the driven gear with its key, thus releasing the two drums from the brake drum.

9-If necessary to disassemble the spring, the unit may be put in a vise, compressing the cup, then driving out the pin. This will release the clutch shift, the spring, the spring support and the thrust ring.

10-Clean the clutch disks in gasoline

or kerosene and if they are cut or scored they should be discarded and new ones should be inserted when the clutch is reassembled. Slight scores may be smoothed out, but in case of doubt it is better to replace them.

Replacing the Bushings

An arbor press is almost indispensablein removing and replacing the bushings in the transmission and it is used for thesame purpose in rebushing various parts of the front and rear axle.

1-Place one of the drums on the plateof the arbor press with the round block shown in Fig. 59 underneath. This block is necessary to take the push of the press,

Next Week

The Brake Bands Miscellaneous Engine Jobs

Future Installments

The carbureter Assembly of engine and transmis-The ignition system Testing and running-in the engine The radiator Rear assembly Front assembly Chassis frame and dash Body, top and windshield The steering gear

What Has Been Covered

System in handling Ford service Labor operations covering repair work

Segregation of work Arrangement of departments Disposition of old material

I—The power plant

-The power plant

-Removing the engine from the car.

-Taking down the engine.

-Testing and straightening the crankshaft.

-Rebablitting the cylinder block.

-Reboring the cylinders.

-Fitting new pistons.

-Fitting the piston pin.

-Aligning the connecting rod.

-Fitting the rings to the pistons.

-Burning in the bearings.

-Testing and overhauling the magneto.

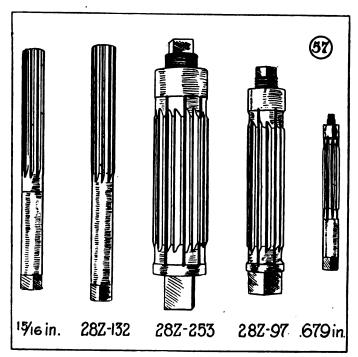


Fig. 57—Reamers used in overhauling transmission. 28Z-97, slow speed gear bushing reamer; 28Z-253, reverse gear bushing reamer; 28Z-132, driven gear sleeve bushing reamer; 15/16-in. transmission driving plate bushing reamer; .679-in. Planet gear bushing reamer

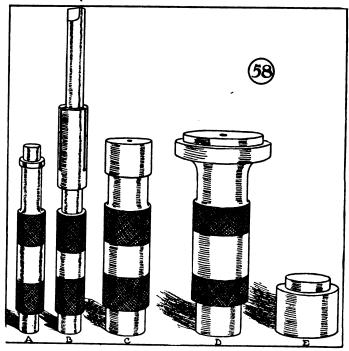


Fig. 58—Arbor press tools for transmission. A, triple gear bushing reamer; B, brake drum bushing driver; C, slow speed bushing driver; D, reverse drum bushing driver; E, driven gear puller block.

otherwise this push would be taken by the rim of the drum and this would most certainly break or twist the drum.

2—Use the proper driver to fit the drum being operated on. The drivers used for transmission work are shown in Fig. 58. Each is the correct size and has the right kind of a shoulder on so that the new bushings will not be damaged when pushing them in.

3—All three of the drums are to be rebushed in this way. See that the new bushings are a tight fit and if they are not, see whether the new bushing is at fault or whether the drum in some way has had the hole enlarged. If these bushings do not fit tight, it will be impossible to secure a satisfactory job.

4—The triple gears are to be rebushed in the same way, but before rebushing they must be tested to see if the rivets are tight and that there is abolutely no motion between the gears.

5—If it is necessary to re-rivet the gears, cut the heads of the old rivets out with a cold chisel.

6—Line the three gears comprising the unit up so that the teeth of all three gears are in line at one place. This will occur at only three points of the circumference of each set of gears.

7—Insert new rivets in the holes.

8—Head the rivets up on a jig like the one shown in Fig. 62. This will hold the heads of the rivets without disturbing the position of the gears.

Reaming the Bushings

After the bushings have been pressed into the drums and gears, they must be reamed out to the correct size. Fig. 57 shows all the reamers necessary in reaming the bushings of the transmission.

The next installment of MODERN METHODS IN FORD SERVICE

Will be devoted to brake band work and miscellaneous overhaul operations on the engine.

I T will appear in next week's issue and will completely cover relining the brake bands, assembling the transmission to the engine, assembly of bands, recutting valve seats, brazing crankcase arms, etc., etc.

READERS are invited to write for information on any points that are not entirely clear to them. The purpose of the series of articles is to show how the jobs are being handled by shops that are making money out of Ford repairing. This will enable you to do the work the same way so that you can make money out of it. Be sure to give us your name and address.

1—Clamp the drums one at a time in a clamping device similar to the one shown in Fig. 60 or Fig. 61. This will hold the drum rigid and will not deface or scratch the surface of the drum and at the same time will allow the operator to use both hands on the reamer.

2—Run the reamer through each bushing all the way. In using a reamer, never turn it backward either to free it of cuttings or to take it out. Reamers that are always turned in a forward direction will not get dull as quickly as those that are turned backward from time to time.

8—The reamer must be held steady; chattering and an uneven hole will be the result otherwise.

Assembly of the Transmission

1—The group consisting of the three drums, the driven gear and the triple gears is first to be assembled.

2—Put the brake drum (which is the one with the longest shaft) on the bench with the shaft or hub uppermost.

3—Put the slow speed drum on over this, the gear, of course, being at the top.

4—Put the reverse drum over the slow speed drum so that the reverse gear surrounds the slow speed gear.

5—Slip the driven gear in place with the teeth downward so that they will come next to the slow speed gear, the two Woodruff keys having been previously put in the two slots in the brake drum hub. An arbor press can be used to force the gear into place.

6—The gear should be driven on just far enough so there is no lost motion, yet so that the drums do not bind.

7—Mesh the three triple gears with the driven gear so that the punch marks correspond, the smallest of the three gears

comprising the triple gear assembly being at the bottom.

8—Space the three triple gears around the driven gear so that there is an equal distance between them.

9—Tie around the outsides of the tripe gears to hold them in this position.

10—Examine the triple gear studs on the flywheel and replace if they are worn.

11—Place the flywheel face down on the bench.

12—Turn over the assembly of drums and triple gears and slide them on the transmission shaft.

13—The studs should enter the holes through the triple gear bushings, if they do not do so readily, shift till they do.

14—Fit the clutch drum key in the transmission shaft.

15—Press the clutch disk carrier in place on the shaft.

16—Lock in position with set screw.
17—Put the distance plate on over the clutch drum.

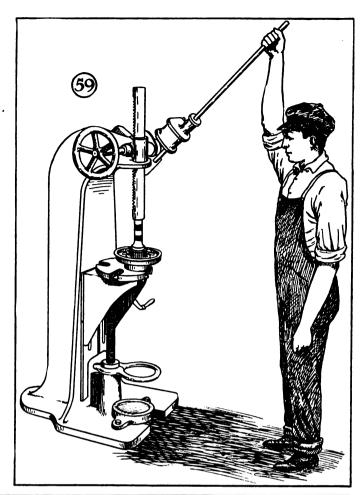
18—Replace the clutch disks, starting with a small one, then alternating large and small. A large disk must come last as a small one would be liable to slip over the edge of the drum when the clutch spring is released.

19—Put the clutch push ring on over the clutch drum and on top of the disks. The three pins should project upwards.

20—Bolt the driving plate in position, the three pins of the push ring coming through to make contact with the adjusting screws on the clutch fingers.

21-If the transmission is properly

Fig. 59 — This shows the method of using an arbor press for removing and replacing bushings. The block used under the drums is shown in detail in Fig. 60



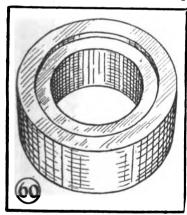


Fig. 60—Transmission drum support which is placed under the drum

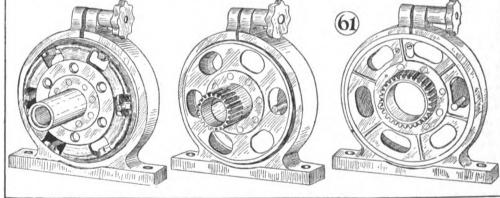


Fig. 61—A transmission drum clamping device for holding the drums while reaming the bushings. The tool is bolted to the bench and the faces of the drums are not injured

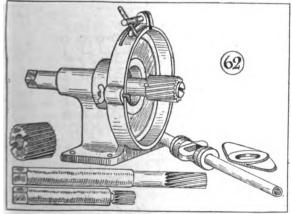


Fig. 62—Another type of drum clamping device. This one has an extension to steady the reamer

Next Week

Brake Bands
Reseating Valves
Camshaft Work
Minor Overhauls
Timing Gears
Starting Crank Bushing

And other work preparatory to assembling the engine, which will be covered in the issue following.

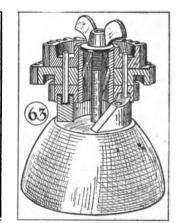


Fig. 63—A jig for riveting the triple gears together



assembled up to this point, the flywheel will revolve freely while any one of the drums is held stationary.

22—Slip the clutch shift over the hub so that the small end rests on the ends of the clutch fingers.

23—Put the clutch spring in place, the clutch supports being inside so that the flange will rest on the upper coil of the spring.

24—Place the clutch-spring thrust ring in place with the notched end down.

25—Compress the spring so that the pin can be put through the hole in the side of the spring support and then through the shaft. In order to compress the spring, the adjusting screws of the clutch fingers should be loosened all the way.

26—The only adjustment is that on the clutch and the three screws should be set up so that each one has the same number of turns. If they are screwed in until the clutch spring is compressed to a length of 2 1/16 in. the clutch should have sufficient hold to drive the car without any trouble.

The transmission can now be assembled to the engine at any time that the engine is ready.

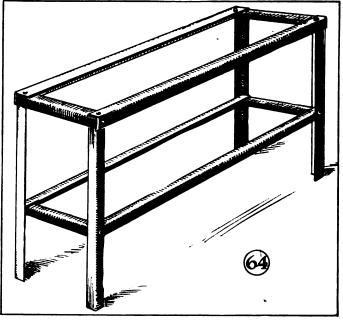


Fig. 64—A stand for holding flywheels, coil assemblies, etc. It is made of angle iron and will accommodate assemblies on top and on the shelf

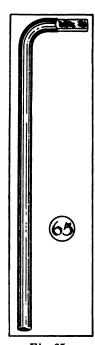


Fig. 65— Transmission turning bar

SHOOTING TROUBLES

Burning-In Bearings

SANARATINAS PORTEGORA (ESCRIPTORA DE CONTROLO DE CON

Editor Motor World: Is it possible for you to give us any information regarding burning-in bearings, as it is not practiced in this part of the country, and we should like enlightenment.—Motours, Ltd., Hillsgrove, Wembdon, Somerset, England.

Answer.—The operation of burning-in babbitt bearings consists in setting up the caps very tight and running the shaft in the bearings without oil or lubricant of any kind. This running is continued for a few minutes at a moderate speed, and the heat generated by the friction of the shaft against the bearing melts the skin of the babbitt next to the shaft and this forms itself to a perfect fit around the shaft without further manipulation.

The advantages of burning-in against the old hand-scraping method are as follows:

Burning-In

Hand-Scraping

A 50 per cent better job is secured at a saving of from \$3 to \$6 in operator's time and a saving of from 5-8 hr. on each job.

While burning-in can be used with

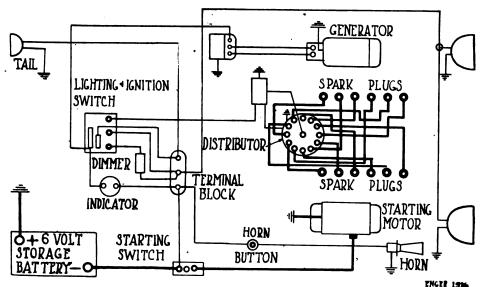
success in fitting any kind of babbitt bearings, either main bearings or connecting-rod, the practice has only been applied to the Ford car to any extent, although other fields are now being developed.

In the case of the Ford, special jigs or machines for clamping the cylinder block in position are made, and these machines provide means for turning the shaft by power and in some cases allow the whole engine to be mounted after assembly for the purpose of running it in in oil.—Editor.

Wiring of the Enger 12

Editor Motor World: Could you furnish us through your paper with a wiring diagram for an Enger 12 engine. It has a Westinghouse starting and lighting system and a Remy distributor. We certainly appreciate Motor World in all its departments.—E. E. Higbee, foreman, Beveradge Motor Co., Salt Lake City, Utah.

Answer—The Enger car that you have is a 1916-17 Twin-Unit Twelve. This is equipped as you state with a Westinghouse starting and lighting system and a Remy ignition system. In looking for trouble in this system, make sure that the coil is well grounded. This is a point often overlooked. The system is a grounded return, the positive of the battery being grounded to the car frame.—Editor.



Wiring of Enger 12 engine

The RETAIL NEWS

SOUTH

The Traffic Motor Sales Co., Wilson, N. C., has been organized to distribute the Traffic truck in that State. The men connected with the company are E. F. Nadal, L. T. Dildy, S. E. Agnew, John R. Dildy and Edgar G. Lee, the latter general sales manager. The company will later distribute an automobile and a farm light plant.

Peerless Starter Sales Co., New Orleans, is extending service stations into northern Louisiana and Mississippi. Cecil Mears, manager of the company, has just returned from this territory.

The Estopinal Motor Co., New Orleans, which recently moved to 1515 Canal Street, has added the Auburn 6. This company also handles the Grant 6 and the Apperson.

SOUTHWEST

- R. D. Higgins, Kansas City, Kan., has opened a tire and accessory shop at 1924 North Fifth Street.
- L. V. Harcourt, Weatherford, Texas, has opened a supply and accessory shop, handling the Pennsylvania tire.

The Cisco Battery Co., Cisco, Tex., has moved into its new one-story building, where all kinds of automobile repairing, battery charging and testing will be done.

The Dorsett & Trubs Automobile Sales Co., Galveston, Tex., which is composed of T. M. Dorsett and R. C. Trubs has opened for business and will handle the Paige car.

The Finley Motor Co., Durant, Okla.. will double its capital stock and move to new quarters as soon as the building is completed.

The Waddell-O'Brien Motor Co., Wichita, Kan. branch, has leased a room on the south of its present location, which will double the floor space.

Bert H. Tarwater, Gallatin, Mo., is having a large room remodeled and decorated for an automobile salesroom, where he will display and sell Overland cars.

MIDDLE WEST

The Consumers Service Stations, Inc., Rock Island, Ill., capitalized at \$500,000, has completed financing, and ten gasoline service stations are now under construction. Ralph Wharff will be general manager. In addition to selling gasoline, kerosene and fuel oil the concern proposes to market cylinder and lubricating oils and cup greases under its own trademark.

H. C. Beem and H. R. Pauschert, Shelbyville, Ill., have leased the Finks Garage, the largest plant of the kind in Shelby County, and will hereafter operate it. They will do a general repair and storage business and also conduct a sales agency.

Fred A. Sperry, Bushnell, Ill., has completed an addition to his garage which gives him 94 ft. greater frontage, while the depth has been increased to 174 ft., the enlargement being necessary to take care of expanding business.

The Hubbell Auto Sales Co., Saginaw. Mich., has purchased a site at Genesee and Water streets on which it will erect a two or three-story, 100 x 132-ft, building, giving the Pord agency an east and a west side location in that city.

The Storage Battery Service Co., Poi: Huron. Mich., has been incorporated with a capitalization of \$12,000, to deal in electric

storage batteries, equipment and appliances. The incorporators are James E. Burgess, Roy C. Gartung, James Green and others.

M. A. Young, who is the Detroit factory branch agent for the Reo Motor Car Co. of Lansing, Mich., will relinquish the agency with the termination of the contract July 31. After that date Mr. Young will handle other lines. He has already acquired the agency for the Peerless.

The Raiph F. Schneider Auto Sales Co., Detroit, has acquired the distribution of the Bethlehem trucks for that city and surrounding territory.

The Bearings Service Co., Detroit, has discontinued the handling of rim and rim parts for service purposes. Arrangements have been made with the U. S. Motors Service, Inc., to take over the rim service business.

The Rapid Change Wheel Co. has moved into a new location on Division Avenue, Grand Rapids, Mich., and will hereafter be in the same quarter as the Peerless Starter Agency.

PACIFIC COAST

Claude C. Needham, Cadillac dealer at Ventura, Cal., has enlarged and remodeled his salesrooms.

Richardson Brothers Motor Supply Co. has moved to a new building at the corner of Main and Oak, Venturo, Cal.

- O. L. Pezel, with salesrooms at Magby's Garage, Ventura, Cal., has added the Dodge Brothers car and the Roamer.
- A. L. Doerr has opened salesrooms at 1028 Geary Street, San Francisco, for the Clydesdale truck.

Frank L. Duffy has organized his own company to operate in used cars and has opened a salesroom and service station at 714 Van Ness Avenue, San Francisco. The company is capitalized at \$25,000 and handles only high-grade used cars.

The New Depot Garage has been opened on San Bruno Road, in South San Francisco.

The Sunnyvale Garage, Sunnyvale, Cal., has changed hands, Cockrell & Nielsen being the new owners.

Ross B. Deyoe and Leon Parker have purchased the San Bernardino Motor Car Co., including the Studebaker agency, at San Bernardino, Cal.

- J. C. Neville has opened a repairshop in the Hutchinson Motor Car Building, Oxnard, Cal.
- L. O. Portwood has become sole owner of the Overland-Salinas Co., and will continue with the Overland line. Portwood will also handle the Republic truck, and has added an accessory department and stocked Goodyear tires. Salesrooms are located at 2229 Main Street, Salinas, Cal.
- J. E. Ganaway has established an electrical repairshop at Paso Robles, Cal.

The McCabe Garage, Studebaker dealer at San Luis Obispo, Cal., has been remodeled and enlarged.

Jack Stuhldreher has opened Jack's Tire Shop in the White Garage Building, Santa Maria, Cal

A. J. Rivers has secured the Chevrolet agency for Santa Maria. Cal., and opened salesrooms in the White Garage Building.

The Haldeman Tire Co., distributer of DeLion tires in California, has opened a branch at 722 State Street, Santa Barbara.

The Auto Electric Battery Shop has been

appointed official service and sales station for Exide batteries in Santa Barbara, Cal., with headquarters at 1219 State St.

Charlesworth Brothers have moved to a new service station at 999 State Street, Santa Barbara, Cal.

Mrs. M. E. McClay has recently sold out the Winston Street Garage, located at 122 Winston Street, Los Angeles, to Edward A. Brooks, who will continue to conduct the place under the same name in the future.

Waiter H. Fisher, southern California distributer for Haynes cars, has opened a salesroom and service department at 917 South Grande Avenue, Los Angeles.

Kulla Hutcheson has taken over the vulcanizing shop at 1004 South Hill Street, Los Angeles, and restocked it with tires, tubes and accessories.

J. A. Fletcher is now proprietor of the Los Angeles Garage, located at 110-28 East Third Street, Los Angeles.

The Distributors Corporation, representing Hassler shock absorbers, has taken possession of new premises at 999 Geary Street, San Francisco.

William W. Wurzburger, Ford and Fordson dealer at Lancaster, Cal., has secured the agency for the Federal truck.

D. A. Saum, owner of the Buckeye Auto Supply Station at Mojave, Cal., is erecting a building, 80 x 100.

Dick's Garage at McFarland, Cal., has secured the agency for the Maxwell car.

Wetmore & Son have opened a new garage and repairshop at Kerman, Cal., and will merchandise the Overland car.

Ben King has remodeled Kin's Garage at Das Palos, Cal.

Jerome Cyr has sold a half interest in his vulcanizing and tire shop at Las Banos, Cal, to J. L. Padulla. The new firm has added an electrical repair and battery department and will handle Willard storage batteries.

Sischo & Crumrine have purchased the Buick Garage at Las Banos. Cal.

The Pacheo Garage has been opened at Los Banos, Cal., as an exclusive Ford car and Fordson tractor sales and service station. A new building, 75 x 150, has been erected.

The Valley Garage, Los Banos, Cal., has secured the agency for the Overland, Hudson and Essex cars.

- C. C. Elkins, Jr., Willard battery distributer in Fillmore, Cal., has added a tire department and will handle Kokomo, Firestone and Diamond tires.
- E. Darling has purchased the Bidart Garage at Puente, Cal.

Charles N. Coker has become sole owner of the Exide battery service station at Ninth and Orange streets, Riverside, Cal.

The Mission Auto Electric Co., Willard dealer at Riverside, Cal., has been acquired by Orchard & Wilson.

Stutt Brothers, Dodge dealers, have opened a branch at San Bernardino, Cal., with G. C. Hattler and Thayer Cline as managers.

W. L. Thonquest has moved to the premises formerly occupied by the Ford agency in Redlands, Cal., at the corner of Fourth and Citrus streets.

W. P. Brush and G. H. Stickel have opened a Willard battery sales and service station at 280 F Street. San Bernardino. Cal.

C. F. Smith has been appointed manager of the C. W. Fisher Garage at Palmdale, Cal., and will handle Wallis tractor sales.

Stow & Hulen, operating as the Santa Barbara Motor Co., have opened Studebaker and Dort salesrooms at 724 State Street, Santa Barbara, Cal.



R. E. Davis has purchased the business conducted as the California Tire Company at 134 East Haley Street, Santa Barbara. A new building will be erected. It will be equipped with up-to-date vulcanizing machinery. Davis will act as distributer for Racine tires in Santa Barbara County.

The Carpenteria Garage & Trucking Co. has purchased the Carpenteria Garage at Carpenteria, Cal., and will handle the G. M. C. Truck.

- W. H. Stuart, part owner of the California Street Garage at Ventura, Cal., has entered into partnership with H. Hart as dealer in Studebaker and Dort cars and Republic trucks. The new firm has purchased the business of J. E. Stuart & Co.
- G. R. Myers, factory representative for Burd piston rings, has recently established the Automotive Sales Co., 1311 So. Flower Street, Los Angeles, where they will handle only the plain step-joint ring.
- A. L. Warner, formerly garageman at Portland, Ore., has opened his new garage and open-air park in connection, at 201 S. Hill Street, Los Angeles, Cal.

Howard S. Reed, recently in the service, is now the successor to the Los Angeles retail branch of the B. F. Wade Tire & Rubber Co., at 512 West Eighth Street, Los Angeles.

A. Mattel, manager for the General Tire & Rubber Co. of California, with branches at Fresno and San Francisco, has recently opened a branch at 527 West Pico Street, Los Angeles.

The Ninth Street Tire Shop has recently opened at 530 West Ninth Street.

Northern Auto Electric Co., Seattle, will erect a building at 419-28 East Pike Street, to cost \$10,000, to be headquarters for the Exide batteries.

Mitchell, Lewis & Staver Co., Portland, will construct a three-story fireproof building, to be 100 x 130, and to house all the departments of the company's business.

- W. W. Sheane, Yakima, Wash., will erect in Toppenish a concrete garage, 100 x 170, to contain storerooms and machine shop.
- J. M. Coiman Co., Seattle, will erect a ene-story and basement garage building, 150 x 139, to cost about \$55,000.
- L. V. Raymond, Raymond, Wash., will erect a concrete garage.

The Palace Garage, Portland, was damaged to the extent of \$35,000 by a recent fire. C. Goodsell is president of the company. The building was damaged about \$25,000, the remainder being to trucks and cars stored within.

Eugene Lennon, Walla Walla, Wash., will erect a concrete garage, to have floor space of 32,000 sq. ft., and to cost about \$35,000.

The Willeys Light Company has opened branch office in Spokane in the Old National Bank Building, in charge of E. L. Schurer.

Fields Motor Car Co., Portland, has moved to its new \$45,000 building at Fourteenth and Adler streets, where the concern has twice the space that it had in its old building.

Pacific Tire & Rubber Co., Portland, recently added the agency for Canton and Rlackstone tires.

M. C. Livermore, Lancaster, Cal., has secured the agency for Mason tires and tubes. William L. Pearce has become the sole owner of the West Side Garage at Los Banos, Cal., and will handle the Haynes, Chevrolet and Stutz cars.

The Valley Garage at Los Banos is being operated by a partnership consisting of ten business men of the city. W. A. Peck has been appointed manager.

R. Shafer, Jr., and F. W. ligenfritz have been appointed Ford and Fordson dealers at Los Banos, Cal., and erected a new building operated as the Pacheco Garage.

Sischo & Crumrine have leased the Buick Garage at Los Banos, Cal., and in addition to the Buick will represent the Dodge and Cadillac cars.

Waiter W. Raieigh has leased space in the Pledmont Garage, 4129 Pledmont Avenue, Oakland, and operates Raleigh's Tire Shop.

R. H. Douglass, 73 Twelfth Street, Oakland, has become Hewitt-Ludlow truck and Rallston attachment dealer for Alameda County. California.

The Maxroy Auto Co., dealer in used cars at 198 Twelfth Street, Oakland, has been appointed distributer of the National semaphore signal.

Primer & Primer have purchased the Lancaster Garage at Lancaster, Cal.

Lubarsky Brothers have established a general automobile and truck repairshop at 440-450 Jackson Street, San Francisco.

The Jerichau & Gordon Tire Co., specializing on Goodyear tires, have taken possession of the premises at 1283 Market Street, San Francisco.

H. F. Mocine has acquired the garage at 140 Twelfth Street, Oakland, Cal., and will operate the same as the Universal Machine Works and Garage.

Charles N. Coker has been appointed manager of the Sunset Battery & Ignition Works at Ninth and Orange streets, Riverside, Cal.

Fox & Heigeson have established the Buick Service Station at 382 West Eighth Street, Riverside, Cal.

The M. & S. Tire Co. has moved to its new building at 334-336 Golden Gate Avenue, San Francisco.

John G. Freeman has become partner with Cecil H. Stone in the tire shop at 317 Van Ness Avenue, San Francisco.

J. H. Cable and H. G. Matiey, operating as the Cable Motor Co., have formed a partnership and acquired the garage and agency at 2109 Chester Avenue, Bakersfield, Cal. The firm will handle the Hupmobile, Chalmers, and Roemer cars, Garford trucks and Sandusky tractors.

The Auto Electric Battery Co., representing the Delco, Remy, Klaxon and Splitdorf lines, with headquarters at Twenty-second and Chester avenues, Bakersfield, Cal., has appointed W. H. Elwell as manager and is erecting an addition, 120 x 107, which will be devoted to Willard battery service exclusively.

- J. H. Eckerson, proprietor of the Eckerson Auto Exchange at 1901 Nineteenth Street, Bakersfield, Cal., has secured the agency for the Stutz car for Kern county.
- J. P. Knowiton, formerly of Hollywood, has purchased the tire and vulcanizing shop at 1516 Eighteenth Street, Bakersfield, Cal.

Kitchen & Ameel, Overland dealers at Bakersfield, are building a \$50,000 building, two stories, at the corner of Twenty-third Street and Chester Avenue. L. C. Karner retires from the firm.

- C. E. Nugent and F. Taylor have opened the Crescent Garage at Bakersfield, Cal., and specialize on reboring engines.
- C. B. Wilde, C. W. McFadden and J. F. Lilly have opened the Kern County Motor Co. to handle Oakland and Nash cars and opened salesrooms on Nineteenth Street, Bakersfield, Cal.
- B. Matsumura has added an Ambu electrical service station to the Park Auto Repairshop at 661 Divisadero Street, San Francisco

W. J. Hall has established a repairshop at 343 Fell Street, San Francisco.

Walter B. Chidester has purchased the repairshop at 435 Gough Street, San Francisco, from Decoto Brothers.

The I. & G. Tire Deport is a new concern located at 257 Twelfth Street, Oakland, Cal., and handling Firestone tires.

- W. Edrington has established the Standard Tire Shop at 294 Twelfth Street, Oakland, Cal.
- G. 8. Aubel and J. Gill have opened a tire repairshop under the name of the San Francisco Retreading Co., at 700 Golden Gate Avenue, San Francisco.

Robert Sanborn, styling himself as a starting, lighting and ignition engineer, has opened a shop at 987 Golden Gate Avenue, San Francisco, under the name of Automotive Electric Co.

Carpenteria Garage & Trucking Co.'s garage at Carpenteria, Cal., has been named the official garage of the Automobile Club of Southern California.

The Lee Tire & Vulcanizing Co. has opened for business at 1378 Market Street, San Francisco.

A. L. Cummings has opened the Dri-Kure Retreading Works, at Carpenteria, Cal.

William D. Jeshke has become the owner of the People's Garage at Santa Paula, Cal.

- J. E. Granger has opened the Spadra Garage at Spadra, Cal.
- C. L. Fisher, distributer of the Crow-Elkhart for the Pacific Coast, has opened new salesrooms in the Hotel Whitcomb Building. San Francisco. The rooms are 80×140 , affording ample space for a tasteful display of the cars as well as of Clydesdale trucks, of which Fisher is also distributer in the Bay Cities. G. W. Frazier has been appointed wholesale sales manager.

Bertheisen's Garage, 2015 San Pablo Avenue, Berkeley, Cal., has added salesrooms for the Grant "six".

Ross B. Deyo and Leon Parker have repurchased the business of the San Bernardino Motor Car Co. at San Bernardino, Cal., and will handle Studebaker cars and Lalley light plants.

J. C. Neville has opened a repairshop in the building of the Hutchinson Motor Car Co., Overland dealers at Oxnard, Cal.

Cockrell & Nielsen have purchased the Sunnyvale Garage at Sunnyvale, Cal.

H. M. Garden has purchased a half interest in the Franklin Vulcanizing & Tire Co., 1596 Market Street, San Francisco, associating himself with C. G. Jacka.

Butler-Veitch, distributers of the Fageol products, have moved their San Francisco salesrooms to 1230 Market Street, W. A. Knuckey continuing as manager.

NORTHWEST

T. B. Schwartz, Potter, Neb., has bought the interest of H. Mahler in the Mahler & Schwartz Avery agency. The new style is Schwartz Brothers.

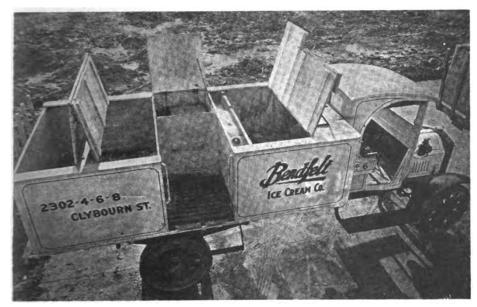
Bose Hayes, Pierce, Neb., has bought the interest of H. E. Brisso in the Pierce battery station.

G. O. Jamesson, formerly branch manager for Apperson Bros., Des Moines, Ia., and for some time with the Clemens Aute Co., and Earl K. Chaffin, Nevada, Ia., dealer in Overland cars at that place, have incorporated for \$15,000 and will distribute Maxwell cars in northern Iowa with headquarters at Mason City, Ia. The company will be known as the Chaffin-Jamesson Motor Co., Inc. They have taken over the building previously occupied by the North Iowa Motor Co. at 116 South Delaware Street.

Clark C. Reed, Creston, Ia., has purchased the Saints Highway Garage at Bedford. Ia.



When You Have an Ice Cream Prospect



When you have an ice cream man who hesitates about buying a truck, tell him you can make him a body like this. This was worked out for use on a Federal truck in Muscukee. The body is specially built for ice cream work. Three compartments, metal-lined, are provided for ice or containers and one for salt. Working space for the driver is left in the middle. Drain pipes lead to a well below the body, which prevents the water from dripping all over the parts of the chassis

A. E. Cooper, Dunnell, Ia., has sold his garage to Arthur Wenberg.

O. N. Heseiman, Dyersville, Ia., proprietor of the Leader Garage, has leased the repair department of the Day and Night Garage

The Boone Auto Wrecking Co., Boone, ia., has purchased the business of the Addix Repairshop.

Ray Rebinson and Dr. W. E. Mack, Coon Rapids, Ia., have bought the Jones Garage there.

R. C. Bayless, Thornton, Ia., has sold his garage to Glen Blighton and Ernest Kofoot.

The Packard-Omaha Co., Omaha, Neb., has bought the garage and stock of the George F. Reim Co.

NEW GARAGES

Waukesha Auto & Machine Co., Wat

Waukesha, Wis.
Otto Richter (60 x 109)...Weyauwega, Wis.
Rublee Auto Co......DeForest, Wis.
Peterson & Hopper,

805 Sixth St., Milwaukee, Wis. Schwartzburg & Schlappman,

North Milwaukee, Wis.

Dependable Tire & Welding Co.,

890 Third St., Milwaukee, Wis.

Prospect (Waukesha Co.). Wis. Ray E. Thompson........Ellsworth, Iowa Auto Supply Co. (66 x 132; \$35,000),

Estherville, Iowa C. F. Wolever & Son....Whittemore, Iowa Blighton & Kofoot.......Rockwell, Iowa J. W. McGinnis (\$7,500).....Seymour, Mo. E. W. Marland (21 x 38, two story),

Ponca City, Okla.

J. J. Gaston (\$4,750).....Tulsa, Okla.

Watkins & Metz (59 x 100; \$6,000),

Long Island, Kan. Warner Bros. (50 x 100).......Buhler, Kan. Carpenter & Hall...........El Reno. Okla. John T. Buckner (will erect)....Mexico, Mo. O. S. Shirk (50 x 130; \$15,000). Wichita. Kan. J. H. Viles........Cottonwood Falls, Kan. Broadway Garage (\$15,000 addition).

Shawnee, Okla.

Whitaker & Featherstone,

Council Grove, Kan. Central Sales Co. (will erect; \$13,000),

Shawnee, Okla.

H. F. Wilcox (\$12,000)......Tulsa, Okla.
Chas. Goodson (50 x 150)....Carrollton, Mo.
J. H. Barker......Independence, Kan.
H. W. Orts (Brunswick tires also),

O. W. Wood and Luther Alford.Buffalo, Mo. White Front GaragePalmyra, Mo. King's Motor Company (will erect large

Topeks, Kan.

Huntziker & Son.....Quinton, Okla.
Saak & HuenefeldNew Florence, Mo.
Robert Nelson & M. T. O'Neill, \$14,000,

Waterloo, Ia.

Goodenow & Jessens.......Maquoketa, Ia.

Nolen WilliamsMaquoketa, Ia.

Slinger & Sons (50 x 150).....Portage, Wis.

William C. Raue (48 x 90)..Watertown, Wis.

Charles Hoock (43 x 120) 1611 Georgia

Ave. Sheboygan, Wis. Chester Dahl (remodel, \$20,000),

Kenosha, Wis-Loomis-Weinke Co. (add. 90 x 120), Portage, Wis. People's Auto Co. (sales)

Thief River Falls, Minn. Morris Auto Co. (addition 90 x 100)

Morris, Minn.

Miller & Leighton (sales) ... Bemidji, Minn.

Holkesvik & Anderson ... Carson, N. D.

John Challey ... Lisbon, N. D.

J. H. Juntuen (37 x 90) ... Rolla, N. D.

E. J. Britson Tokio, N. D.

Walter Dregston (vulcaniser)

Dodge, N. D. Victor & Harold Hirsch (battery service) Huron. S. D.

Brooks Tire & Battery Co. (100 x 170) Sioux Falls, S. D.

Illinois Tractor Co. (44 x 150)
Sioux Falls, S. D.

Symms-Brownell Co. (spark plug factory)
Sioux Falls, S. D.
Henry Homen

Henry HomanSioux Falls, S. D. Dr. C. E. Gardner.....Clear Lake, S. D. Amos Bowyer & Harry Bielby

Chamberlain, S. D.
Thos. WittenmeyerHighmore, S. D.
C. H. Kelly (\$4,000)........Huron, S. D.
A. H. Nuss (supplies)......Tripp, S. D.
James Shevling (75 x 150).....Nisland, S. D.
F. E. McEvers (repairshop)...Hamill, S. D.
W. W. Jacobs (trail garage)

Deadwood, S. D. Chris Helmer (vulcanizing shop) Highmore, S. D.

C. W. Thompson......Sioux Falls, S. D.
J. R. Garretson.......Garretson, S. D.
Pratt Bros. (motor truck shop)

Webster. S. D.

Lewistown, Mont.

William ReynoldsDarby, Mont.
Frank RobertsonDarby, Mont.
Jaqueth & Charnholm, Inc....Libby, Mont.
T. Peterson (tireshop)Hamilton, Mont.
Lackie & Johnson (Yellowstone Garage)

Forsyth, Mont. Smith Garage Co. (addition) Whitehall, Mont.

Roberts & Russell (add. 40 x 50)

Ft. Atkinson, Wis.

Meili-Blumberg Co. (\$15,000)....Chilton, Wis.

Meili-Blumberg Co. (\$15,000)....Chilton, Wis. Otto Grunwald (repairs)..Fond du Lac, Wis. E. W. Clark Motor Co. (add. 55 x 120)

Fond du Lac, Wis. Sammons & Hanson (repairs)

Ladysmith, Wis. Henry Bryant (45 x 150)...Milwaukee, Wis.

The following firms were recently appointed dealers by the Sanford Motor Truck Co., Syracuse, N. Y.: Northside Hoisting Co., 680 E. 133d Street, Bronx, N. Y.; Fayette Motors Co., Fayette, Ala.; Escambia Sales Co., Atmore, Ala.; Wm. Penn Auto Co., 111 Ninth Street, Altoona, Pa.; C. L. Kerr, 47 Exchange Street, Geneva, N. Y.; C. E. Phillyss, 426 Third Street, N. W., Washington, D. C.; Beverly Garage, Staunton, Va.; A. A. Williams, Evergreen, Ala.; H. H. Cornick, Cornick's Garage, 370 Chenango Street, Binghamton, N. Y., and James Pritchard & Sons, Ithaca, N. Y.



News Letters From Trade Centers

The Week in KANSAS CITY

KANSAS CITY, MO., July 5-Kansas City dealers and distributors are worried over the shortage of cars and trucks. They are having to scramble for cars now, though the big business of the year has scarcely begun. A few companies have cars and trucks, though many of the salesrooms are bare, without even a demonstrator. As might be expected, the used car business is humming along under such circumstances.

Godfrey A. Jones and E. M. Tharp have bought the Mid-West Haynes Motor Co., 1600 Grand Avenue. The distribution of Haynes will be under the name of the Midwest Haynes Co., while retail sales will be handled under the Jones-Tharp Motor Co. The firm has added the Stephens Salient Six. The used car department is under the management of

Harry C. Davies.

The Hiatt-Buick Co., finding that its passenger cars were selling faster than it could deliver them to people whe came into the salesroom, has turned its attention to selling airplanes. Sixteen airplanes have been sold by this firm in a few weeks. Some of the planes have gone to motor car dealers, but most of them to business men who have real use for flying machines. The salesmen in the motor car department have been sent to the factory to study conditions there pending the time when perhaps they will have the backing of stocks of cars to proceed with their sales efforts.

G. L. Omohundro has resumed his distribution of Holmes cars in Kansas City territory, after war service at the fac-

The H. A. Dougherty Motor Co., distributors of Republic trucks, have taken the distribution in Kansas, Missouri, Oklahoma and Texas of the FWD army ordnance trucks. The Republic Sales Co., local dealers in Republic trucks, will retail FWD in Kansas

The Republic Sales Co. and the H. A. Dougherty Motor Co. believe in showing what they have to sell. Their sales rooms are notable for always having goods on the floor -both Republic and FWD trucks, the Lauson and the Allis-Chalmers tractors. companies have foresightedly stocked ahead to take care of the big and quick demand that is assailing the distributors and dealers.

The Peerless Starter Co. (perhaps because it could not get a Motor Row location) has been selling from a Grand avenue location in the middle of the business district. It has sold nearly a thousand in Kansas City in seven weeks-300 to passersby.

The Peerless Gridley Motor Co. has let

plans to the contractors to erect a large three-story building, to be located at Eighteenth and McGee Streets.

H. B. Sexton, formerly manager of the Fisk Rubber Co.'s Kansas City branch, has been appointed manager of the Sterling Tire Corporation's branch here.

The Delco Khaxon Rem branch, an institution only a little over a year old, has outgrown its present establishment and will enlarge the floor space.

The Bradley Auto Co., dealers in used cars, report a large sale of second-hand cars, especially Fords and Buicks, with Fords extremely hard to get.

The Week in **NEW ORLEANS**

NEW ORLEANS, LA., July 7—The new road along the Gulf of Mexico Coast, from New Orleans to Mobile, will be ready for use in 14 months at the longest, according to Duncan Buie, state highway engineer of Louisiana. Eighteen towns will be brought into close motor connection with New Orleans. The towns to be connected with New Orleans by this transportation facility, their approximate populations, and their distance from New Orleans are: Chef Menteur, population small and transient, 19 miles; Rigolets, population small and transient, 28 miles; Slidell, 2300, 36 miles; Logtown, 250, 45 miles; Waveland, 600, 60 miles; Bay St. Louis, 3500, 64 miles; Pass Christian, 2600, 70 miles; Long Beach, 1100, 75 miles; Gulfport, 6600, 79 miles; Mississippi City, 250, 84 miles; Beauvoir, 350, 88 miles; Biloxi, 9800, 93 miles; Ocean Springs, 1500, 96 miles; Fontainbleau, 60, 102 miles; Gautier, 60, 105 miles; Pascagoula, 3400, 108 miles; Scranton, 100, 112 miles, and Mobile, 53,000, 150 miles, a total for the towns alone of 85,520 inhabitants. Another 65.000 dwells in the agricultural regions tributary to these towns, all of which will be reached by roads running out to this trunk line.

Eugene A. Dumas, Inc., distributer of Hupmobile and Davis cars, is moving into new quarters, 60 x 170 ft., on Carondelet Street, directly back of his present quarters on St. Charles Street, on August 1. Howard C. Dumas, who has just been discharged from the aviation service of the army, will have charge of the stockroom.

A. Duvic & Sons, internal combustion engine dealers, who brought the first motor boat engine here some 25 years ago, are preparing their own 4story building on Chartres Street, and will occupy it about Oct. 1.

The Week in MILWAUKEE

MILWAUKEE, July 7-For the first time in history, every garage, salesroom and repairshop in the downtown district of Milwaukee, and nearly every one in the outlying sections, was closed for three days straight on July 4, 5 and 6. In observance of Independence Day and to give employees a holiday at an opportune time, places of automotive business closed from Thursday evening until Monday morning. A special meeting was held by the Milwaukee Automobile Dealers, Inc., to adopt this regulation, and repairmen generally fell in line.

Due and timely notice was given all patrons through the newspapers and otherwise. All other business was suspended in Milwaukee during the three days, even the large department stores remaining closed on Saturday.

After the three-day interruption, the rush for cars was resumed to-day. Despite the rather disappointing situation arising out of the inability of factories and distributers to make prompt deliveries, largely because of the overwhelming demand at this time, buyers continue to clamor for cars. The waiting list, which was an unknown quantity a year ago, is an established adjunct of nearly every salesroom—and growing

every day.

Everybody Busy

Activity in the general automotive field is not confined to the rush for cars. Makers of cars, trucks, parts, equipment, etc., are being rushed as probably never before. There have been some slight outcroppings of labor trouble at Milwaukee, but disputes have found rapid settlement and production has not suffered material interruption.

Evidence of the great activity, reflected in the extension of existing plants, is now found in the erection of many new factories and the organization of new corporations, all of which appear to be substantially founded and have no earmarks of promotion schemes designed to take advantage of the present-day swellen purse and its propagation of investors. Fortunately, Wisconsin has a stringent "Blue Sky" law and otherwise regulates matters closely, so that the carpet-bag promoter has little chance of doing business here.

The Reliance Motor Truck Co., Appleton, Wis., which was thoroughly reorganized early this year, when Appleton interests gained complete control of the



stock, is making such rapid progress that it has been decided to increase the capital stock from \$500,000 to \$1,000,000. As soon as practicable, a four-story building, 70 x 300 ft., will be erected to provide much-needed capacity. Besides building the Reliance truck, the company manufactures the Badger external spur gear drive rear axle on a commercial basis. Orders now on the books call for approximately 100 trucks for immediate delivery, and the axle business is flourishing as well.

The Antigo Tractor Co. has been incorporated at \$100,000 by prominent business men of Antigo, Wis. It will build a farm and general purpose tractor of the quadruple drive type designed by D. S. Stewart, a pioneer tractor engineer.

Every Wisconsin employer of a female or a minor over 17 years of age is affected by the minimum wage order establishing 22c. an hour as the lowest pay, which has been issued by the Industrial Commission by authority of the minimum wage law enacted in 1913. The order is effective Aug. 1. The rate of 22c. an hour is for experienced employees. The order provides for a "learning period" of six months. During the first half of this period, the minimum wage is 18c. and in the last half 20c. an hour. Employers appear satisfied with the rate. which is rather flexible in that the Commission may order changes at the beginning of an annual period as changes in the cost of living may appear.

The Fox River Tractor Co., Appleton, Wis., is building a small shop, 40 x 75 ft., for experimental and assembling purposes, and early next spring will build its new plant, to be 120 x 120 ft. The company is a new one, organized with \$200,000 capital, and will manufacture a four-plow machine, designed by Frank and Oscar Saiberlich, who retired recently from the Eagle Mfg. Co., tractor manufacturer, Appleton, to build and market their new type.

Tire Outing July 13

The Milwaukee Tire Dealers' Association has selected Sunday, July 13, as the date for its first annual outing, to be held at Genesee Lake, Waukesha County. The association was organized only a few months ago but is achieving such success in placing the legitimate dealers of Milwaukee in the proper light, thereby discouraging patronage of "curbstone" and "fly-by-night" traders.

To accommodate a fleet of forty motor trucks, part of the excess army equipment allotted to the Milwaukee Post Office for collection and delivery service, a three-story garage and maintenance station, 120 x 120 ft., is being erected at Milwaukee and Huron Streets by E. E. Rogers, Pabst Building. The government has taken a 10-year lease on the

An organization gang which broke into tire stores and disposed of their loot at a "fence" in an isolated section of Milwaukee was sent to prison for long terms in Municipal Court on July 2. The Wisconsin Legislature has created a special joint legislative committee to investigate the methods of doing business in this State by the International Harvester Co., and appropriated \$1,000 to cover expenses. The committee is clothed with plenary powers and given the assistance of the Circuit Courts of Wisconsin to carry on its work.

The Week in PHILADELPHIA

PHILADELPHIA, July 5—The week has been too hot and humid for much to be accomplished in the way of sales of automobiles and automotive equipment, the thermometer registering on the last three days of the period from 106 to 103 in the shade. Then, too, interest has been centering on the big fight in Toledo, so salesmen had little to do, especially as the Fourth made a break in the business days.

An announcement that came somewhat as a surprise to most of the trade was the resignation of C. R. Cunliffe, director and sales manager of the Automobile Sales Corp., Cadillac distributer, to become general manager of the new Cadillac branch in Chicago. Cunliffe's promotion is regarded as recognition by the Cadillac company of his record as sales manager here for the last four years, during which period the local organization has made bigger gains than any other distributing point in the country, according to officials. Before joining the Cadillac company about eight years ago. Cunliffe was manager for Armour & Co.'s Philadelphia branches, also acting in the capacity of assistant general superintendent.

John A. Cleary, manager of advertising and sales promotion for the local Cadillac company, also has resigned, to take a similar position with the Chicago branch. Cleary formerly was a news paper man in this city.

Capt. H. L. Davisson, formerly of the Electric Storage Battery Co., Philadelphia, and the Edison Storage Battery Co., Orange, N. J., has just returned from France, where he was in the Engineering Corps, and now is district manager for the Lawrence Motor Co., Twenty-third and Chestnut Streets, which handles the Walker electric.

Receipts from automobile licenses from Jan. 1 to July 1 of this year are \$559,575 in excess of the receipts for the same period last year for the state. The figures for the two periods are: Jan. 1-July 1, 1918, \$3,732,661; 1919. \$4,392,236. The last tag number issued is near the 385.000 mark.

Automobile trade circles are mourning the loss by fire, of the famous "Roost" Hotel on Mount Penn, just outside of Reading, which for several years has been the objective point of various summer outings for the trade associations. It was only en June 25 last that the Philadelphia Garage Association held its "sociability run" to that point.

Farmers are complaining that they have been victimized by men representing themselves as government agents and selling automobiles at "bargain" prices. For some time, stories of the government offering touring cars that originally cost \$1,000 to \$3,200 at figures ranging from \$300 to \$1,200 have been current in the rural districts, especially in the Cumberland valley. This week several men appeared through the farm sections and succeeded in luring a few men-five have made complaint-into making payments of from \$50 to \$200 on "government cars now at Baltimore, but ordered for transport to France,' said cars to be "delivered within a few days." After collecting the advance paymonts, of course the sharpers disappeared. Investigation by dealers shows that all good cars will be kept in government service and that no touring cars, or other automobile passenger vehicles are being offered for sale by the government.

The committee on elementary schools of Philadelphia has petitioned the finance committee of the Councils to be allowed to have purchased for the use of crippled children a fleet of motor buses to supplant the inadequate horse-drawn vehicles in use at the present time. At least three motor buses probably will be purchased.

The Week in BIRMINGHAM

BIRMINGHAM, ALA., July 3—Alabama automobile dealers will gather in Birmingham, July 14 and 15, for the annual meeting of the State Automobile Association. The state association will doubtless go on record as favoring the proposed issuance of \$25,000,000 good roads bonds by the state of Alabama for improving the roads in co-operation with the government under the Bankhead law.

The Archibald-Goldstein Motors Co. expects to be in its new building, at Avenue E and 20th Street, Sept. 1, and will carry a line of Hupmobiles.

The Denegre Car & Truck Co. has secured the agency in Alabama for the Apperson and will appoint dealers in the smaller towns.

Raymond J. Kirwan, late captain in aviation, heads the new Johnson-Curtiss Airplane Co. which will open offices in Montgomery, July 1. The company will erect airplanes and has already begun an advertising campaign in local papers catering to fair associations and people interested in commercial aviation. J. R. Fitzsimmons from the factory at Buffalo and B. D. Smith, army aviator, are interested in the new concern.

Seven motor trucks, part of the allotment for Jefferson county, donated by the government, have arrived and are being equipped with new dump bodies by the Denegre Car & Truck Co. so they can be used in road construction.



Last month all the dealers of the Traffic Motor Truck Corp. gathered at the company's plant in St. Louis to see vening and conversing, they found time for a big panoramic

The Week in ST. LOUIS

ST. LOUIS, July 5—This has been a short week, but a pleasant one for the motor trade of St. Louis. Nearly every establishment in the city closed for the Fourth not to reopen until Monday morning. The three-day closing was agreed to by all of the members of the St. Louis Automobile Manufacturers' and Dealers' Association, the Motor Accessory Trade Association and the St. Louis Storage Battery Trade Association.

Speeches for Battery Men

The Storage Battery Trade Association heard talks at the meeting at the Annex Hotel at noon Monday by Martin J. Wolf, an expert on character reading, and W. R. Dudley, special service representative of the U. S. Light & Heat Corp.

Mose Frank, vice-president and sales manager of the Newell Motor Car Co., Paige and Stearns distributer, died suddenly at his home last Wednesday following an attack of apoplexy. He was 43 years old, and a native of San Antonio, Tex. He had been with the New-

ell company five years.

F. W. A. Vesper, president of the Vesper-Buick Co., has returned from the meeting of Buick distributers at Flint, with the news that work on the main buildings here of the Buick and Chevrolet plants of the G. M. C. will begin immediataely. W. H. Kilpatrick, works engineer for the Buick, will be in charge of the construction, while Assistant Engineer Fennell will have active charge. The buildings, docks and trackage will cover twelve acres. All buildings will be 3-stories high, with a combined floor space of nineteen acres.

Under a new city ordinance the period of parking motor cars in the congested district is reduced to one hour. The bill is before the mayor, and he has recommended that the police obtain thief signal locks and fasten one on a wheel when the time limit is expired. It would thus be necessary for the owner to go to the police station to get it unlocked. Then he would be arrested. An average of 1757 motor cars are parked in the congested district daily.

A delegation from the Motor Accessory Trade Association called on Director of Streets and Sewers Talbert to protest against the non-enforcement of the ordinance requiring diffusing lenses on headlights to remove the glare. Talbert told the accessory men he would ask the police to enforce the headlight law.

The Lewis Automobile Co., Chandler distributer, has leased the two-story building at 4432-34 Olive Street, to be used as a salesroom for the Cleveland. The building is 50 x 150, and was formerly occupied by the Stevens Motor Car Co. The new firm probably will be known as the Cleveland-Lewis Automobile Co. and E. O. Stagg, wholesale manager of the Lewis company, will be manager.

The Automobile Club of St. Louis has decided to revive the annual reliability tour. The 1919 tour will be held in October, and will include De Soto, Arcadia, Ste. Genevieve, Jackson, Cape Girardeau and return.

Plans for the second annual river excursion of the Motor Accessory Trade Association on the new excursion steamer J. S., July 25, will be discussed at the meeting of the association next Tuesday.

New Truck Unit Agency

James Powers, formerly with the St. Louis branch of the Sterling Tire Corp., and C. C. Fitzpatrick, formerly in the railroad business, have established the Af-Ford-Able Truck Sales Co. at 4450 Olive Street to distribute the Affordable Truck Unit in Eastern Missouri and Southern Illinois.

The same week that Missouri ratified the suffrage amendment the first woman came to manage an accessory store in St. Louis. She is Miss Nora E. Love. who has taken charge of the Wearwell Tire Store, at Twelfth and Locust Streets, which handles the products of the Wilson Tire & Rubber Co., Springfield, Ill. She was formerly connected with the factory and later managed the Washington, D. C., branch.

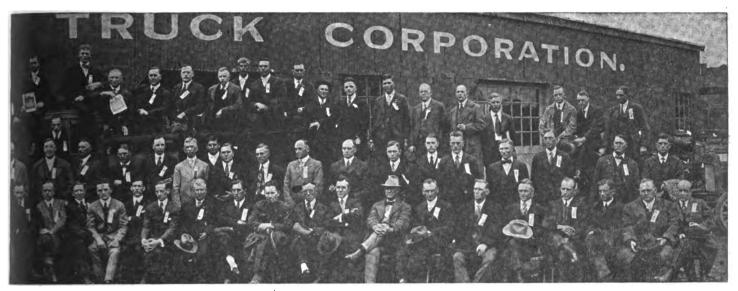
The Fred Campbell Auto Supply Co., now at 1109 Locust Street, has leased the two-story building at 2806-12 Locust Street, now occupied by the McQuay-Norris Mfg. Co. The latter concern will move to the large factory it is building at Cooper and Bishop Avenues on the Oak Hill Railroad. The moves will be made about Oct. 1.

When David Robertson, an attorney of Mexico, Mo., found he could get no crates with which to pack his law library of 1000 volumes, nor could he get a freight car for its shipment, he arranged to ship the books by truck to St. Louis. The whole library was loaded onto a two-ton truck by the Mexico Transfer Co. and, leaving there at 6 a. m., arrived here at sundown, a distance of 140 miles. The rate was 40 per cent cheaper than by rail and the shipment was made in less time.

The Week in DES MOINES

DES MOINES, July 5—Delco light dealers and salesmen of Southwest Iowa who are in the territory of the Des Moines district, controlled by the Electric Farm Lighting Co., a subsidiary of the Hudson-Jones Co., held a two-day sales convention in Des Moines this week. R. H. Grant, general manager, E. G. Biechler, sales manager, and R. H. White, service engineer, from Dayton, were among the speakers at the convention.

Members of the Motor Trades Bureau of the Des Moines Chamber of Commerce did some effective work in the campaign



the new trucks and to consult on merchandising plans and prospects for the coming year. Aside from eating, conpicture underneath the company's name on the side of the plant

and on election day last Monday when Polk county voted on the paved roads issue. ON ELECTION DAY THE MEMBERS OF THE BUREAU HAD 200 MOTOR CARS BUSY ALL DAY CARRYING VOTERS TO THEIR POLLING PLACES.

The Des Moines Exide Battery Co. bas started construction work on their new building at Thirteenth and Grand Avenue. The building will be two stories, 66 by 84, of brick.

The Four-Wheel Drive Truck has appointed H. C. Hall district sales supervisor in the Iowa-Nebraska territory. Hall will have headquarters in Omaha but will make frequent visits to Des Moines. Hall was formerly a Cadillac distributer.

J. C. Barry, formerly with the Franklin Motor Car Co., will be territory salesman with the new factory branch of the Oakland Motor Car Co., Des Moines.

The Rockwood Tire Co. has been formed by C. A. Rockwood and has opened a salesroom at 910 Locust Street, to handle Miller tires. Rockwood has recently been discharged from the army.

V. R. Evans, manager of the Electric Farm Lighting Co., has resigned and will go to Cedar Rapids to be associated in the management in the Delco district sales agency there. Evans will be succeeded by D. B. Howland, of Dayton, Ohio.

The Klem Mfg. Co. has purchased the Iowa Spring Co. and taken over the plant at 1324 Grand Avenue.

The Week in BOSTON

BOSTON, July 5—The beginning of mid-summer with their floors swept clean of cars leaves the Boston motor dealers with lots of idle time to while away. But they would rather have cars coming and more competition in sales, for the men who are looking ahead feel that there will be no chance to develop good salesmen under these conditions to meet the days when production will be normal.

The Campbell Motor Corp. is now located on Beacon Street. This is the company which Chester I. Campbell, manager of the Boston shows, heads, and it sells Continental motors. It has a salesroom and two upper floors in a large building.

Tractor on Motor Row

The J. I. Case Threshing Machine Co. has opened a salesroom on Boylston Street among the big motor car dealers where it is selling its tractors and threshing machines. This is the second tractor salesroom to be opened among the motor dealers, the other being the Cleveland a few doors away, handled by A. H. Sowers.

Amos J. Shorey, who heads the big New England Velie organization, with that line, the Briscoe, Moon, and the Rainier truck, has taken the agency now for the Pilot car, which he will market from the same salesrooms as the others.

Frank E. Wing, New England distributer of the Marmon, in anticipation of a big business for 1920, is planning to establish branches at Worcester, Providence, Portland and other New England cities. He has opened his Worcester branch already with F. A. McNamee, in charge at 729 Main Street. Next week the Providence branch will be opened.

The Northway Motors Corp. had a banquet at the Lenox, Tuesday evening, which was attended by the officers and a number of invited guests, the latter being stockholders in the corporation. Addresses were made in which the future of the company was outlined.

H. C. Williams has taken on the agency for the Bush car for the Boston territory and he has opened salesrooms at 211 Newbury Street. He was formerly with the Peerless agency.

The Week in INDIANAPOLIS

1NDIANAPOLIS, July 3—Dog days apparently have arrived. It was so hot this week that there was no ambition to do things, other than what had to be done.

At the Hoosier Motor Club dinner Thursday night in honor of the State Highway Commission, about three hundred guests were present, including Governor James A. Goodrich, Mayor Charles W. Jewett, L. Wright, chairman of the State Highway Commission, and many visitors from various parts of the state, who are interested in better highways. According to views expressed by the Governor and others, Indiana soon will have many miles of highway that will be second to none in the United States.

What perhaps are the first three airplane orders ever placed by individuals in Indiana, for business as well as pleasure purposes, were given a few days ago by Carl G. Fisher. James A. Allison and N. H. Gilman. These men are widely known in the motor world, through their connection with the Indianapolis Motor Speedway.

Harry C. Stutz, who recently resigned as president of the Stutz Motor Car Co., to become president of the Stutz High Duty Fire Engine Co., announces that a test of the Stutz high duty pumping engine at the Convention of the International Association of Fire Engineers at Kansas City, this week, resulted in a perfect score. A twelve hour run was made. The Stutz High Duty Fire Engine Co. recently was organized here, with a capital stock of \$250,000.

The McGraw Tire & Rubber Co. has opened a branch in Indianapolis and will distribute the McGraw product through Indiana, Western Kentucky and Southern Illinois. R. J. Fitzgerald will come from the company's general offices to take charge of the branch.

The State Purchasing Committee, through M. C. Shelton, secretary, announces that the local branch of the Firestone Tire & Rubber Co of Akron, has received the contract for supplying automobile tires to the State institution for the year beginning July 1.

Harry Warren, who has been representing the Sewell Cushion Wheel Co. in Ohio territory with headquarters at Columbus, has been transferred to Indianapolis. He will have charge of sales for the Sewell wheel in Indiana and the Louisville district of Kentucky.

The Majestic Tire & Rubber Co. has started the manufacture of Cloverleaf Cord tires. The tire company was organized recently. It has a capital of \$250,000. R. H. Syfers is president; E. B. Oscar, vice-president; O. C. Pantell, secretary and treasurer, and J. B. Hilliard, superintendent. Syfers is a stock dealer here. Oscar was for five years local branch manager of the Goodyear company, and Pantell is vice-president of the Midwest Engine Co. The company has leased the plant formally occupied by the Home Brewing Co.

The Indiana Motors Co. has taken the agency for the Kissel passenger car line and the Clydesdale truck.

William N. Thomps.n was named general manager and treasurer of the Stutz Motor Car Co. of America at a meeting of the company's directors in New York.

Automobile licenses issued by the state automobile license department for the six months of 1919 exceed by 19,142 sets the number issued for the corresponding period of 1918. The total number of sets issued from Jan. 1 to July 1, 1919. was 246,303.

Autom bile racing still holds the palm. Although the Willard-Dempsey fight was touted as the event of the year attracting the largest crowd, the actual attendance of 50,000 people shows that the Indianapolis Motor Speedway race of this year still retains the honor of drawing the largest crowds of any sporting event. At the races of May 31, the number of spectators numbered between 90,000 and 100,000.

The Week in LOS ANGELES

LOS ANGELES, July 3—Because of the scarcity of cars some dealers are planning to break from their policy of exclusive representation of one line of cars. They anticipate trouble with the factories on this point but say they must have cars of one kind or another to sell in order so stay in business.

Building activity is at its peak. New garages and sales buildings are being completed almost weekly. There are probably half a dozen agencies awaiting the completion of quarters. Some of these will be new firms in the city while others will obtain larger accommodations.

In order to help the state raise funds to build an all-season road to the Yosemite Valley, certificates are being sold throughout the state to motorists and others. The entrance fee to the park for motor cars is \$5 and this is the price of the certificates, which may be exchanged for the standard seal which all cars entering the park must display. The proposed road will enter the valley via El Portal and follow the bank of the Merced River.

The Gates-Kelley Automotive Co. has been appointed distributer in California, Arizona and Nevada for the Jumbo truck.

The Leach Biltwell Co. is the new representative of the Columbia. This firm also contemplates the assembly of cars locally.

Announcement has been made that the Goodyear Tire & Rubber Co. will establish a manufacturing plant here.

The J. B. Wood Tire Co. has been made distributer for Hewitt tires in Southern California and Arizona.

The Week in NEW YORK

NEW YORK, July 9—Emphatic evidence of the trend of metropolitan car purchases toward closed bodies was revealed in a survey during the week of sales activities of several of the leading dealers. Orders for closed cars have reached an aggregate of 60 per cent of the total, it was declared, and deliveries generally are three months behind, as compared with four weeks on the average for open cars.

The dealers attribute this latter condition in part to failure of the manufacturers to recognize far enough ahead the rapidly growing popularity of the closed car, though admitting that the change of demand has been as well somewhat of a surprise in the retail trade.

Automobile row locked its doors, except at service stations where emergency crews were maintained, over the Independence Day week end, the dealers and their employees journeying to nearby resorts, along with thousands of potential customers whose absence from town would have left the salesrooms deserted over the double holiday. The Automobile Dealers' Association also suspended activities from Thursday night to Monday morning

The dealers have gone in enthusiastically for golf this season, starting a tournament July 1 on the links at the Dunwoodie Country Club. A large field of players appeared for the qualifying and first match rounds, in which W. R. Chandler of the Hayes Diefenderfer Co., dealers in trucks and truck bodies, was the stellar performer. He won the low gross and tied for the low net, with a card of 88-16-72. George S. Morrow, Templar distributer, also had a net of 72, his score reading 95-23-72. Players who qualified for the championship contest were: A. C. Harrington, S. S. Toback, C.

E. T. Scharps, L. T. Goldman, H. P. Schade, Harry Pyke, A. J. Diefenderfer, J. C. Nichols, W. A. Allen, A. J. Picard, W. C. Poertner and Albert Hirst.

The Franklin distribution office, which is selling cars much faster than the factory can deliver them, also has been the scene recently of other "doin's" interesting to the retail world. Along with his own elevation to the presidency of the Rotary Club of New York, Glenn A. Tisdale, head of the establishment, recently gave his son, Glenn W., a "lift" into the managership of the offices and salesrooms. The younger Tisdale, who served overseas as a captain in the 331st Field Artillery, is rapidly becoming as ardent a Franklin booster as his father, who is also one of the pillars of the dealers' organization.

L. G. Peed, who has been for some time general sales manager of the New York branch of the Willys-Overland, has been appointed to the newly created office of assistant manager of the eastern division. He is working at the right hand of W. L. Colt, who is in charge of all Willys-Overland sales east of Pittsburgh and from the Carolinas to Canada. During the war Peed supervised both the general sales work and the Broadway salesrooms, which are now under the direction of W. S. Stewart. Peed has opened offices at 531 West 57th Street.

The Bronxco Body & Accessories Corp. has succeeded the Ford Accessories Co. in control of a flourishing plant on Jackson Avenue, the Bronx. William Wahrenberger, well known in Ford trade circles in the East, is president of the new concern, which has done a rushing business supplying the ready post-war demand for bodies, wheels and various accessories, experiencing a near depletion of a reserve stock that was expected to last for several months.

Lewis B. Moore has been appointed sales manager for the Bessemer truck by the Morton W. Smith Co., local distributers. Moore, who previously handled Gramm-Bernstein, Bethlehem and Selden trucks, will make his headquarters at the sales and service station on Fiftysecond Street, in the heart of the automobile retail section.

The new Oakland branch, which took over the distribution formerly handled independently by the Sidney B. Bowman Co., July 1, reported the sale of seventeen cars during the first three days. W. P. Disbrow, retail sales manager, declared that deliveries would be made before Aug. 1. The new salesroom in the General Motors building, is one of the most spacious on Broadway.

Steamboat Service for Motor Cars

DETROIT, June 30—Plans for a fast steamboat to carry motor cars, trucks tractors and automotive supplies and implements, are being made by the Detroit & Cleveland Navigation Co. The vessel will be built at once. It will have two decks with two sets of elevators and will accommodate 275 automobiles. Automobiles and parts will be carried to any point on the lakes justified by the shipment.

IOWA AND NEBRASKA HAVE PLANE AGENCY

C. L. Herring Enters New Company at Des Moines—Army Officer Manager

DES MOINES, IOWA, July 5-C. L. Herring, head of the Herring Motor Co., Des Moines, and one of the most widely known distributers in the Central West, has decided to sell airplanes. He announced to-day that he had entered a new company, as yet unnamed, that will handle Curtiss planes in the western part of Iowa and the eastern section of Nebraska. A branch will be opened at Omaha. In active charge will be Lieut. Clarence Young, who was recently discharged from the aviation branch of the army and who, during his service, was a prisoner in Germany for several months. The new company has pur-chased twelve planes and one already has been sold. The concern will be entirely independent of the Herring companv.

New Jordan Stock Sells Easily

CLEVELAND, July 3—The new stock of the Jordan Motor Car Co. has been oversubscribed. Approximately 6000 shares of 7 per cent cumulative preferred stock was offered on a basis of one share of preferred at par, with 20 per cent of common as a bonus. The entire issue was sold in a few hours.

Savold Incorporates

NEW YORK, July 3—The Savold Tire Corp., which has patented processes for rebuilding tires from the inner lining to the new tread, announced to-day its incorporation for \$5,000,000 under the Delaware laws, and the additional formation of state corporations in New York, New Jersey and Delaware.

Starting with production in Chicago, the company has made plans for manufacture in ten other states under a process of selling territorial rights and leasing ovens in which the tires are treated. Aside from Illinois, the states covered in the production scheme are New York, Pennsylvania, New Jersey, Ohio, and the six New England commonwealths. A plant with a daily capacity of 400 tires is in operation in Newark, N. J.

4-Cylinder to Be First DuPont Car

WILMINGTON, DEL., July 7—The first car to be built by the duPont Motor Mfg. Co., recently formed, will be a 4-cylinder model. It is hoped to have it ready in time for the next New York automobile show. A 6-cylinder car may follow. The location of a manufacturing plant has not been decided, but the main office of the company is at 904 Market Street. The company is capitalized at \$100.000.

E. Paul duPont, president of the new corporation, is also associated with the

Ball Grain Explosive Co., of which Alfred I. duPont is president, and he is president of the Delaware Marine Motors Co. Arthur M. Maris, vice-president and general manager, was with the Biddle Motor Car Co., Philadelphia, until he went to war in 1917. John A. Pierson, chief engineer, was formerly associated with the Wright-Martin Aircraft Corp.

Madison Dealers to Stage Show at Fair

MADISON, WIS., July 7—The Automobile Dealers' Division and the Tractor Dealers' Division of the Madison Association of Commerce will hold their mid-summer show at the Dane County Fair here, with cars, trucks, tractors and accessories on display, August 26-29.

The exhibit will be divided, one tent being used to house automobiles, one trucks, and another tractors.

A special running course will be provided by the Fair management so that the tractors may be seen in motion. This will enable exhibitors to take their tractors out of the tent and show them in action. More than 25 different makes of tractors will be exhibited by Madison dealers alone, and outside distributers will have machines on hand.

Legislative Relief in Wisconsin

MILWAUKEE, July 7—Important changes affecting the registration of motor vehicles in the hands of manufacturers, distributers, dealers and sub-dealers in Wisconsin are provided in Chapter 450, Laws of 1919, published July 5 and effective Jan. 1, 1920. The law gives the industry and trade of Wisconsin muchneeded relief from the oppressive and obnoxious provisions of the section enacted in 1917, which contains many glaring inconsistencies.

One of the most important provisions of the new law is that requiring every manufacturer of or dealer in motor vehicles in Wisconsin to make a monthly report to the secretary of state showing this information: Date of sale of each motor vehicle sold, date of delivery of same, the name and address of the party to whom sold, maker's number of motor vehicle, motor number, style of vehicle, motive power, horsepower, new or second-hand motor vehicle.

189,429 Automobile Carloads Shipped This Year

NEW YORK, July 7—At the annual meeting of the members of National Automobile Chamber of Commerce, the Traffic Committee, consisting of Wm. E. Metzger, Chairman (Columbia), A. I. Philp (Dodge), and F. C./ Chandler (Chandler) made a report which showed, among other things, that carload shipments of automobiles from factories for the year ending April 30, 1919, amounted to 189,429 carloads, compared with 224,805 in the previous year.

Arrangements were made with the Railroad Administration for sending empty automobile cars from all parts of the country into the manufacturing territory for factory shipments.

RUSH TIRE CARGO BY PLANE EXPRESS

George Browne, of Milwaukee, Arranged Successful Freight Carrying Trip

TOLEDO, OHIO, July 5—George W. Browne, the Willys-Overland distributer at Milwaukee, who recently announced his entry into the airplane sales business, has put over his first advertising stunt with one of his "heavier-than-air" fliers. It was the delivery by aerial express of a shipment of tires from the Federal Tire Co., at Cudahy, Wis., to the Willys-Overland Co., here. The trip, just completed, was made without incident to the fliers, only one stop—at Chicago for gasoline and oil—breaking the 300-mile flight from Cudahy.

The trip was arranged by Browne to test out the possibilities of an aerial package line. Two Curtiss biplanes were used for the test, piloted by Lieutenants Milton Elliott and Shirley Short, accompanied by Lieutenant O. L. Locklear, the former army officer who recently at Atlantic City was transferred from one plane to another while in full flight, one of his stock "tricks."

"The commercial aerial service promises soon to become general in its use," Browne declared, "as its feasibility has been demonstrated."

He announced that he was opening an aviation field at Milwaukee, where he is handling Curtiss planes, and that he hopes soon to maintain several regular express runs.

Texas Jobbers Merge

EL PASO, TEX., July 3—The Tri-State Motor Co., the Western Motor Supply Co. and the Yonge Auto Supply Co. have merged as the Tri-State Accessories Corp. with headquarters at 425-427 W. San Antonio Street. It will operate exclusively wholesale.

The officers are: President and general manager, Barry Cool, who has been in the automobile and accessory line for 14 years in California; vice-president, J. W. Kirkpatrick, formerly president and general manager of the Tri-State Motor Co.

Honduras Wants American Agencies

WASHINGTON, July 7—With the construction of improved highways and new postroads in Honduras, the government of that country is endeavoring to induce automobile firms in the United States to establish agencies there, according to Dr. Leopoldo Cordova, Jr., consul-general of Honduras in New Orleans. He is desirous of getting in touch with firms or agents contemplating such a step.

Similar request comes from the government of Ecuador, through its consul, Dr. Carlos A. Bermeo, in New Orleans. Roads are being improved in Ecuador and motor trucks especially are wanted for handling fruit crops, and ores from the mines.

TRUCK TOUR TO SHOW FARM USE OF MOTORS

Plan Demonstrations in Six States—Expect 25 Trucks to Start August 4

CHICAGO, July 3-The National Truck Development Tour, which, as has been reported in earlier issues, is being planned by the National Association of Motor Truck Sales Managers, is developing into a much more important proposition than early reports indicated. The tour has, as its main purpose, the development of truck use on the farm but its scope is broader inasmuch as the tour will preach the motorization of the farm with the truck as the keynote of this motorization. Not only will the value of the truck as a means of transportation for the farmer be taught by special speakers and by example of the trucks themselves but also its application to other farm uses, particularly those where belt power is needed.

All or nearly all of the twenty to twenty-five motor trucks will be equipped with power take-off and will demonstrate the use of the truck in driving such small power machines as cream separators, ensilage cutters and power saws. Some of this equipment will be carried on the trucks and they will also give demonstrations with equipment already on the farm.

Teach the Farmer

Not only will efforts be directed toward the education of the farmer in the value of the truck, but truck dealers and prospective dealers also will get first hand demonstrations and instructions in the methods of using the truck on the farm and special sales arguments for them. Also the financing of the dealer and farmer in truck purchases by the local banker will be made one of the features of the tour. A special representative of the Illinois State Banking Association will accompany the trucks and will make it his point to convince the local banker of the necessity of assisting the financing of truck purchases by dealer and farmer and show him how to do it properly.

The Pan-American Union is taking a direct interest in the demonstration and will have a special representative in order that the lessons may be transmitted to other countries in the union and also will take moving pictures for use in Latin American countries. Special speakers who will take up various phases of the motor truck in transportation and on the farm will be on hand at every noon and night stop. The tour will be accompanied by a Jackie Band from the Naval Training Station.

Final plans for the run were completed to-day at a meeting of the executive committee of the National Association of

Motor Truck Sales Managers. change in the previous plan was made by postponing the time of start one week. The demonstration tour will start from

Grant Park, Chicago, Aug. 4, and will take sixty days, reaching six states and such cities as Dubuque, Cedar Rapids, Des Moines, Bismarck, Grand Forks, Fargo, Minneapolis, Madison and Milwaukee. It is anticipated that from twenty to twenty-five trucks will participate, one truck from each factory. At this time eighteen factories have entered trucks. These will all be pneumatic-

Saxon Gets Insurance on Late President

DETROIT, June 22-In 1915 the Saxon Motor Corp. took out \$500,000 of five year term insurance on the life of Harry W. Ford, its president, but on Oct. 23, 1918, discontinued thi because Mr. Ford was no longer connected with the corporation, and all of the insurance lapsed except one policy for \$50,000. policy provided for extended insurance. and the annual dividend of \$155 due Oct. 23, together with the Massachusetts legal reserve of \$24.50, extended the insurance 124 days. It was, therefore, in force when Mr. Ford died and the Saxon Corp. was recently paid the \$50,000.

New Truck Line Started

BOWLING GREEN, KY., June 27-W. R. Hogan has inaugurated a passenger and express truck line to operate 25 miles between this town and Scottsville, terminus of a branch of the L. & N. Railway.

Air Taxi Service for Illinois

GALESBURG, ILL., July 3-An airplane agency has been established by Lee Wright and Rollo Allensworth to handle Curtiss and Canadian planes. Air delivery service of tractor, truck and implement parts has also been established by the company in addition to air taxi service. Hangars will be built and a landing field provided.

Dual Truck Trailer in Production

DECATUR, ILL., July 3-A truck trailer which carries connecting rods between the front and rear axles, both sets of wheels turning at the same time, will be manufactured at the plant of the Dual Truck & Tractor Co. John Gumpper, inventor, is plant manager.

Used Car Market Flourishing

BLOOMINGTON, ILL., July 3-Dealers in Illinois are unable to secure enough cars to keep pace with their sales. Many cars are being delivered minus certain parts, the missing parts being shipped as soon as received. Shortage of raw material, labor difficulty and unrest are mentioned as being responsible for delayed shipments.

The shortage in cars has forced dealers to pay more attention to used cars, trucks and tractors, and the market for used vehicles has been flourishing. Sales of trucks and tractors are reported ahead of expectations.

CAR THIEVERY GROWS WORSE IN DELAWARE

Culprits Break Garage and Wheel Lock in Latest Crime

WILMINGTON, DEL., July 7-The Delaware Automobile Association has inaugurated an aggressive campaign against motor car thievery in the state. As the first move, the association has offered a reward of \$100 for information that will lead to the arrest of persons who stole a car belonging to Col. Weller E. Stover, one of the members. The authorities, of course, are also busy on this and other similar cases, and it is safe to predict that if the culprit is aprehended, he will receive the maximum punishment. The association in its campaign has the assistance of all of its members and also of the members of co-operating organizations in other states.

The Stover robbery was particularly aggravated, in view of the fact that the thief or thieves had to break into a locked garage, and also had to break a locking device on the car wheels. All of this was done without making enough noise to attract the attention of anybody in the house. Thefts on the street are comparatively easy, but in this case a different task had to be accomplished.

New Akron Garage

AKRON, OHIO, June 23-T. Dodge. who is looked upon by real estate men as a mysterious outsider, arrived in this city last week and purchased a \$35,000 site in the business district. He says he intends to erect at once a three-story garage that will cost approximately \$100,000.

To Enlarge Packard Capital

DETROIT, June 21-A call has been issued to the stockholders of the Packard Motor Car Co. for a meeting Thursday, June 26, to vote on a plan authorizing an increase in the company's capital stock from \$21,000,000 to \$50,000,000.

\$90,000 Home for Automobile Company

NEW ORLEANS, LA., June 27-Crawford, Jenkins & Booth, Ltd., handling Paige and Jordan cars, have bought a lot 60 ft. on St. Charles Avenue and 120 ft. on Erato Street, and will put up a 3-story brick building to cost in excess of \$90,000, and to be completed by November.

Display windows will occupy both the St. Charles and the Erato Streets sides. Salesrooms, offices, parts department and service station will occupy the first floor; shops and repair plant, the second floor, and storage rooms, the third.

H. M. Parker, recently connected with the industry in Florida, has been appointed manager of the company.



MOTOR CAR PAPER IS **GOOD, SAYS A BANKER**

Federal Reserve Bank Advises Dealers' Association Car Paper Good Risks

ST. LOUIS, July 5-The acceptance of the commercial paper of a motor car dealer by Federal Reserve Banks is based upon the same principles as govern the acceptance of paper of every other business; that is, the dealer individually must be a good risk and the collateral approved. The Federal Reserve Bank of St. Louis has thus advised the National Automobile Dealers' Association, quoting a reserve bank ruling uniform throughout the country and issued March 1, 1918.

This opinion, which was sought by the N. A. D. A. to clear up a misunderstanding that has arisen as to the policy followed by reserve banks toward the motor car dealer, makes it clear that the paper of the motor car dealer is just as good as that of a dry goods merchant, or a machinery man or other dealer. The reserve bank does not directly concern itself with motor car dealers' paper. When a dealer sells a car on time, he usually takes a note for the remainder of the purchase price. This note, which is secured by a mortgage on the car, is taken to the bank and sold by the dealer after he indorses it.

"When the bank wishes to replace the money taken out of its vaults for the dealer," Harry G. Moock, business manager of the N. A. D. A., explains, "It goes to the Federal Reserve Bank with its own paper, with the note turned in by the dealer as collateral for deposit. This means then that the Federal Reserve Bank has, as its security, first the paper of the member bank, then the security of the member bank as guarantor of the customer's note, then the indorsement of the dealer on the customer's note and lastly a lien upon the car, affording it virtually a four-ply security."

Mr. Moock explains that the reason for some of the inference against the motor car dealer's paper with the Federal Reserve banks is believed to have been the result of a ruling refusing to take the paper of a New York motor car finance corporation, but which in no way affected the finance corporation's ability to obtain loans on their security, although keeping this security from being rediscounted at the reserve banks. The Federal Reserve decision follows:

"Notes of Finance or Credit Companies.

"The Federal Reserve Board has received and considered your letter of February 6 (1918), relating to the right of a Federal Reserve bank to rediscount the collateral notes of a certain corporation.

"The Federal Reserve act authorizes any Federal Reserve bank to discount a note or bill drawn for an agricultural, industrial or commercial purpose; that is, a note or bill, the proceeds of which have been used, er are to be used for such a purpose.

"The Federal Reserve Board has always ruled, therefore, that the note of a finance or credit company, which is drawn either directly or indirectly to finance some industrial or commercial concern in the transactival

tion of its business is not eligible for rediscount, even though it may be secured by paper which is itself eligible for rediscount. "Congress has made a very evident distinction between the two kinds of paper, and this distinction was emphasized when an amendment to the Federal Reserve act was passed last year expressly authorizing Federal Reserve banks to rediscount the note of a member bank when secured by eligible paper, but this amendment was specifically limited to notes of a member bank and cannot be construed to authorize the rediscount of notes of any sort of financial institution, even though most adequately secured by paper which is itself eligible for rediscount. "The Board must therefore necessarily

rediscount.

"The Board must therefore necessarily rule that the note of a credit company, even if secured by eligible paper, is not eligible for rediscount if its proceeds are not used for one of the purposes specified in the law."

Mexico Buys Trucks at Kansas City

KANSAS CITY, MO., July 5-The Fulton Motor Truck Co. branch here is breaking into international relations with the Carranza government of Mexico. stranger strolled into the building at Kansas City a few days ago and purchased twelve trucks to be expressed immediately to Eagle Pass, Tex. manager of the company attempted to find out what was to be done with the trucks. The stranger refused to tell but presented payment with the departure of the purchase. There followed his own mysterious exit and the matter was forgotten until two days later when the manager learned that the Mexican Government was the recipient of the trucks.

Higher Price for Standley Carriers

BOONE, IOWA, July 3-The list price on Standley luggage carriers, manufactured by the Standley Skid Chain Co., has been increased from \$4 to \$5, it was announced to-day. The war tax will be absorbed by the company.

Russell Car Earns \$500,000

TORONTO, ONT., July 3-The Russell Motor Car Co. will close the current year with earnings around \$500,000, somewhat less than the year ended July 31, 1918.

During the past two years a yearly dividend of 7 per cent was declared in one lump after the close of the fiscal years. Shareholders may expect a similar distribution this year, probably in August.

Motor Insurance Discussed In Expert's Book

BOOKLET discussing many phases of motor car insurance has just been issued under the name "The Rights and Wrongs of Motor Car Insurance," by G. C. Rathbone & Son, Inc., New York City. It is a reprint of a magazine article prepared by Chris. Bambach, vice-president of the Rathbone company and general manager of the automobile department. Bambach takes up. as an expert, all phases of the motor insurance business and especially points out the value of policies written by the better known companies. He speaks in a field in which many dealers and owners have neglected to acquaint themselves. Inquirers for the booklet should address G. C. Rathbone & Son, Inc., 80 Maiden Lane, New York City.

MISSOURI SHOWS **17.000 MORE CARS**

State Registration Reports Reveal Large Increase—Seek Proper Licenses

ST. LOUIS, July 5-An increase for the entire state of 17,270 motor cars over 1918 is reported by Secretary of State John L. Sullivan. The registration to July 1 was as follows: Owners' license plates, 205,320; dealers' duplicate plates, 1825; motorcycle plates, 2835; chauffeurs' badges, 18,007; transfers or re-registrations, 3836.

Of this number, the St. Louis officeregistered 38,586 owners, 8653 chauffeurs' badges and 1160 motorcycles. The Kansas City office registered 27,850 owners, 3142 chauffeurs and 619 motorcycles.

Sullivan believes that several thousand other motor cars are being operated without a license and to check up on unpaid licenses he has asked the assistance of dealers, through the National Automobile Dealers' Association. A blank form has been sent out for dealers to fill monthly, giving the number of new cars they have sold, the persons to whom sold, their address, name of vehicle and horsepower. The Secretary states that this blank is required under Art. 3. Sec. 7. Missouri Motor Vehicle Law (1913).

Complaint has been made by Sullivan that motor car owners are using the plates on cars other than for which they were designated, and he has asked the police to assist him in running down this matter. He charges that some licenses issued for Fords are being used on Packards and Pierce-Arrows, the registration fee being less on the smaller car.

In addition to reporting the sale of new cars, dealers must register the transfer of second-hand cars under the provisions of House bill No. 589 passed by the last legislature and which is now in effect and being enforced. This law provides that, to make the sale of a second-hand car legal, both the buyer and seller must indorse a certificate of registration before a notary public. This must be delivered to the purchaser as his evidence of ownership and recorded in the office of the Secretary of State. Otherwise such sale is void, and both parties are liable to a fine not to exceed \$50, one half of which goes to the informer, except a public official, and the other half to the public school fund. The purpose of the law is to reduce motor car thefts.

Increasing Samson Output

JANESVILLE, WIS., July 2-Production of Model M Samson tractors has reached thirty to forty a day at the factory here. These are being distributed among the dealers to the best advantage to take care of urgent orders. The company hopes to turn out tractors at the rate of 200 to 300 by late midsummer.

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BOSTON CAR REPORTS SHOW LARGER DEMAND

State Tax Figures Indicate 3 Million Road Fund—Regisster 8,000 More Cars in 1919

BOSTON, July 5-Issuing 8645 more plates during the first six months of this year to motorists than were issued during the entire 12 months of last year is a good indication of the big demand for motor cars. And, but for the shortage of vehicles, the increase would be far greater.

There were issued a year ago just 142,600 registrations by the highway Commission. On June 30 last there were given out 151,245 sets of plates.

achusetts collected but \$1,843,595.74, or \$308,326.39 less than this year. In the total figures of a year ago are included, it is believed, the fines, but these are not computed in the six months' figures of this year. Deducting them from the 1918 figures would put the receipts to date ahead of all last year.

Present indications point to a registration of about 165,000 or 170,000 cars and some 40,000 trucks. This will run the receipts for 1919 to at least \$2,600,-Therefore, the \$3,000,000 mark annually will be in sight with 1920. With the amalgamation of the Highway Commission and the Public Works board, which is being brought about, the motor department will, without doubt, be transferred to the new commission. In the transfer, the motorists are trusting that nothing will be done to divorce the use of this money for highway maintenance from the present system.

Comparative registration figures are

given herewith.

F	irst six months 1918	Total for year 1918	First six months 1919	Gain to date over entire 1918
Cars Trucks Motorcycles Dealers Receipts	28,986 10,062 2,432	142,600 33,053 12,583 2,509 \$2,184,408.37	151,245 35,321 10,474 2,345 \$2,151,922.13	8 645 6,325 *2,109 *164 *\$32,486.23

*Decrease

When a comparison is made between the first six months of this year and the same period a year ago, the figures are more impressive. The jump is 23,-482, for a year ago to July 1 there were only 127,760 issued.

Commercial vehicles, too, figure in the large increase. During 1918, there were just 33,053 registered. Up to last Tuesday, there were 35,321. That is an increase of 3268. When the comparison is made with the first six months of a year ago, when 28,986 were listed, it shows 6335 more.

In the number of dealers given registration numbers this year, the figures show a falling off. In all of 1918 there were 2509, while this year there were 2345 up to July 1, a decrease of 164. And for the first six months of last year there were 2432, or 87 more than the present half year. That is easily explained. In past years dealers' numbers were issued to dealers, both new and used car firms, garages, and a lot of mercantile firms, and to individuals who were not strictly sellers of motor vehicles.

This year the Highway Commission made various changes. Many men and firms who in the past were running their chicles on dealer numbers were deprived of this privilege. They have had to accept the classification of their proper sphere. Naturally, the dealer figures dwindled but to-day they are more representative of the men who legitimately handle cars for sale.

Then there are the receipts from the motorists. Last year, for the 12 months, motor owners paid the State \$2,184,-408.37. For six months this year they have turned in \$2,151,922.13. That is within \$32,486.24 of the 1918 total. For January to July inclusive in 1918, Massthe past, it will be possible to take care of improving and repairing state highways each year without having to apply to the legislature for special grants for such work. The amalgamation bill is being whipped into shape now by the legislative committees, and there is little doubt about its passage. It will then be left to the governor to appoint the different members of the commissions, it is believed.

Comparative registration figures are given herewith.

ELGIN SWEEPSTAKES ASSURED ON AUG. 23

The 300-Mile Event Will Have \$8,000 Prize Money—Two Day Plan Given Up

CHICAGO, July 5—Arrangements for resumption of the Elgin Road Races on Aug. 23 have reached the point that the race can be said to be assured. The entry blanks will be out next week and already eight entries have been definitely promised. The race will be for 308 miles on the 8.6 mile course and will be limited to 300 cu. in. cars. Prizes will total \$8,000, split five ways with the first prize \$4,000 and possession of the Elgin National Trophy which is valued at \$5,000. The course is reported to be in very good condition now and will require but little work to put it in shape for the event. Original plans contemplated two days, racing but it has peen decided to have but one day and one race. The interest exhibited on the part of speed devotees assures an entry list as large as for former Elgin races.

Body Builders in Combine

INDIANAPOLIS, July 5-The Martin-Parry Corp. has been formed as the result of a merger of the Martin Truck and Body Corp., York, Pa., and the Parry Co., Indianapolis, Ind. F. M. Small, of the Martin company, heads the new combine as president, with John J. Watson, Jr., chairman of the board of directors, and Henry Hopkins, Jr., secretary and treasurer. The new concern will seek to manufacture 60,000 bodies during the next year, it was announced. Standardization plans will lower costs.

COPY

Cheyenne, Wyo. 1033A June 23

HARRY G MOOCK

NATIONAL AUTO DEALERS ASSN STLMO.

DELOUSED DEMOBILIZED DELIGHTED

GRAY

1215P

Ed. Motor World: A complete story in three words. This telegram is from my former service manager who has spent two years in France as truck sergeant with the signal corps.—Harry G. Moock, Business Manager, National Automobile Dealers' Association.

ENGINEERS LOOKING FOR LIGHTER CARS

Engines of Lesser Power Also Predicted at S.A.E. Meeting —Trend to Closed Bodies

NEW YORK, July 3-Motor car engineers are far from being agreed as to the future automobile, and though an entire half day was devoted to discussion of the subject by nearly 200 engineers at the Society of Automotive Engineers' summer meeting, held at Ottawa Beach last week. They are all agreed that automobiles are to be lighter; that the engine power will be reduced; that the closed type of body will increase in use more and more at the expense of the open touring type; that the spring suspension must be improved to make cars easier riding; and that for small cars the four-cylinder engine will be the popular type, and for larger types the six-cylinder will command most attention.

Herbert C. Snow, chief engineer of the Winton Co., expects the small car of the future will weigh between 1500 and 2000 lb. The large seven-passenger car will weigh 3500 to 4000 lb. These figures represent a considerable reduction in

weight over present models.

William B. Stout expressed himself as much more of a radical in connection with car weight. Some years ago Mr. Stout designed the Scripps-Booth cyclecar, and later designed the Scripps-Booth runabout, which had such popular lines. Stout has been connected with aviation work for several years and he thinks it possible to produce a five-passenger car that will have better riding qualities than any car on the market at present and that will weigh but 900 lb. He thinks such a car will have a 15 hp. six-cylinder engine weighing not more than 120 lb. According to Stout such a car would average 30 to 40 miles per gallon of fuel.

H. M. Crane, designer of the Crane-Simplex automobile, which has not been manufactured during the period of the war but which previous thereto represented approximately the highest priced American machine, and one which sold largely in the zone of New York City, thinks the day of the high priced car has not passed, but that there will continue to be a very strong market for the high priced machine. Mr. Crane looks to a much greater sale of closed cars and considers the open car very largely a utilitarian vehicle employed for transportation purposes only. Mr. Crane looks to improvement in the design and workmanship on all grades of cars because of the wave of economy in operation that has passed over the country. Many of the low-priced cars are far more expensive to operate than they should be in view of their light weight. Mr. Crane believes that a car in ordinary service should average 25 to 35 ton miles per gallon of fuel. This economy of fuel becomes more important because of the failing supply of gasoline. In the

future cars requiring more than 1 gallon of engine oil for each 100 gallons of gasoline are not, according to Mr. Crane, operating with that economy that should be obtained.

L. H. Pomeroy, engineer and designer of the British Vauxhall car, which is considered one of the best performing cars in England, attended the meeting and favored a four-cylinder engine in preference to an eight-cylinder or twelve-cylinder type. Pomeroy believes that everything necessary can be obtained from a four-cylinder design if the necessary care in design and workmanship is carried out. He disputed the oft-heard argument that it is necessary to have eight or twelve cylinders in order to have continuous torque, and contended that as satisfactory torque can be had with a four-cylinder engine as with an eight or

Jesse G. Vincent, Packard engineer, asked that the difference between an experimental car and the model for regular production always be kept in mind. There is scarcely a factory that is not working on experimental jobs that may be incorporated in existing models 4 or 5 years hence, but there is a danger in endeavoring to crowd many of these features into a stock model. The stock model must be a gradual evolution. Vincent does not take much stock in such a car as Stout's 900 lb. ideal, and while that is a goal to aim at, it is too remote to be considered in the field of practical production to-day.

Reliable Engine Incorporated

PORTSMOUTH, OHIO, July 3—The Reliable Tractor & Engine Co., formerly the Reliable Engine Co., has been incorporated for \$2,000,000 by C. Heer, F. E. Adams, George W. Platt, F. N. Tynes and M. Heer. The company has been making the Reliable 10-20 tractor, using kerosene oil, and 2-cylinder opposed stationary and portable engines in a limited way, and with increased capital it is expected to increase its business.

Jobbers Pick Chattanooga for 1920 Meeting

NEW ORLEANS, LA., July 7—The Southern Automobile Jobbers' Association, which closed its annual convention here June 28, decided to meet at Chattanooga in 1920.

A. H. Borden, vice-president of the Shuler Auto Supply Co., of New Orleans, was unanimously re-elected president, with E. F. Yancey of Atlanta, as vice-president, and F. K. Levy, secretary-treasurer.

Iowa Licenses 232,762 cars in Three Months

DES MOINES, July. 7—In the period between March 15 and June 30, 232,762 licenses were issued on Iowa motor cars. In the three months previous to March 15, 93,772 additional licenses were issued. Fees on the licenses issued between March 15 and June 30 amounted to \$1,739,487.

NINETEEN AIRPLANES SOLD AT KANSAS CITY

O. W. Hiatt, Buick and Curtiss Dealer, Has Found Promising Field

KANSAS CITY, MO., July 5—Kansas City is the second largest distributer of airplanes in the United States and the only place where immediate deliveries of planes to customers are being made. O. W. Hiatt, Buick dealer here, made this statement to the Kansas City Advertiseing Club—and he ought to know, since he is selling the planes.

He had sold three the day of the Ad club meeting, two the day before—in all 19 in four weeks, he announced. He is about cleaned out of his stock of 20 Canadian Curtiss planes. September 1 he will begin getting deliveries on the American Curtiss, for which he is the dealer. On one day, 25 inquiries were received in his office for planes. One cus-

tomer wanted four.

In addition to the prospective sales, there were many opportunities for contracting for exhibitions, at \$600 to \$1,000 for 30-minute flights, he said. The airplane department, exclusive of salesmen, numbers seven. An aviation field about seven miles from the center of the city has been offered and accepted by Hiatt. Lieutenant Dow, former army instructor, is chief instructor, and is available to teach customers who wish to drive their own planes. E. S. Nadeau is tester and rigger. He formerly was with Rickenbacker in Europe.

"Most of the ships sold so far have been for exhibition, passenger-carrying and advertising purposes," said Hiatt. "Within six months, however, many will be in use also for pleasure riding, I believe."

Anti-Thieving Bill Signed

HARRISBURG, PA., July 3—The Cox House bill, regulating the transfer of used motor vehicles to prevent illicit trading, and the transfer of stolen vehicles, was signed by Governor Sproul. On May 1 a bill was signed providing that upon conviction motor thieves shall pay a fine not to exceel \$5,000 and undergo imprisonment not less than ten years. The two bills cover all possible cases of theft and provide drastic punishment.

Pennsylvania Rubber & Supply Outing

CLEVELAND, July 7—The annual outing for the sales division of the Pennsylvania Rubber & Supply Co., known as the Prsco Club, was held for the three days, July 3, 4 and 5, at Cedar Point on Lake Erie. A complete program of entertainment, athletic events and dances was arranged for numerous prizes donated by various manufacturing concerns. The holiday closed with a banquet given by the firm at which a prize 5-minute talkfest was conducted on "How to Increase and Hold Sales with Least Expense."



Gaston Chevrolet Sets New 100-Mile Record

Racing Veteran, in Frontenac, Lowered His Brother's Mark at the Independence, Day Sweepstakes at Sheepshead Bay — Wilcox Pushed His Peugeot to Second Place Despite Three Tire Changes

The Finish at Sheepshe	ead
Driver and Car	Win- nings
1—Gaston Chevrolet, Frontenac 2—Howard Wilcox, Peugeot 3—Dave Lewis, Meteor 4—Eddie O'Donnell, Deusenberg 5—Ira Vall, Hudson 6—Dennis Hickey, Stickel	. 2,000 . 1,200 . 1,000 . 600
7—Joe Thomas, Mercer8—William Vetere, Deusenberg.	. 400

SHEEPSHEAD BAY SPEEDWAY, N. Y., July 4.—Gaston Chevrolet drove a 4-cylinder Frontenac 100 miles in 54 minutes, 171/8 seconds in the Independence Day sweepstakes here today, establishing a new world's record.

The performance kept the record in the Chevrolet family. The winner's brother, Louis, driving the same type of car, made the best previous time for the distance—three seconds slower than Gaston's—in the Harkness Trophy competition here in 1917.

Today's race was won by perfect functioning of the Frontenac. Chevrolet rounded the fifty laps without a stop, and at an average speed of 110.5 miles per hour. He whipped off some of the 2-mile circuits in less than 64 seconds, averaging 65.14 seconds per lap for the entire course.

His time, officially attested as an American record by the A. A. A. Contest Board, was declared to be without equal in foreign racing.

Howard Wilcox, who drove a 4-cylinder Peugeot to victory in the Indianapolis classic in May, finished second in the same machine in 58 minutes, 37 3/5 seconds, crossing the tape four laps behind Chevrolet. Dave Lewis in a Meteor, equipped with a Deusenberg 8-cylinder motor, took third money.

New 10-Mile Record

A second card of the day's program, a match race between Wilcox and Ralph

de Palma for three heats of ten miles each, was called off at the end of the first heat as a result of piston trouble on the big Packard, which also put de Palma out of the 100-mile event. The five-lap spin, however, gave Wilcox an opportunity to establish a new American record —5 minutes, 22 1/5 seconds—for the ten miles.

33,000 Real Race Fans in Stands

The big race drew a crowd of 33,000 persons, who, while deprived of the thrills that go with accidents and closely contested events, showed keen interest in the motor performances staged before them. Cheering was only occasional and not at all frenzied, because excitement was lacking, owing to Chevrolet's easy victory, but the maneuvers of the cars were closely watched and fully three-fourths of the spectators remained in their seats upward of an hour after the racing was over, watching several of the drivers in practice sprints.

Frontenac Only Perfect Performer

Chevrolet's car was the only entrant to avoid a stop at the pits. The machine escaped tire trouble and the engine worked so smoothly that the driver declared he could have cut his time materially had he not eased up, owing to lack of dangerous competition, after the thirty-second lap. Of eleven starters, eight finished, but with the exception of the winner, all made from one to three halts for minor adjustments, predominantly to replace tires punctured or blown out on the battered plank track. The Frontenac, however, made circuit after circuit without a sign of trouble, maintaining the lead throughout except during a three-lap battle with Joe Boyer in another Frontenac in the 30-mile stage of the race.

Real Contest Between Frontenacs

In fact, the real race, until engine trouble forced Boyer out in the thirty-third lap, was between the two Frontenacs. They ran abreast, Chevrolet less than half a length in the lead, for twenty-eight miles, when Boyer forged ahead for the fifteenth, sixteenth and seventeenth laps. Chevrolet crept past him in the eighteenth and gradually lengthened the gap between the two machines up to the thirty-third, when Boyer's motor began to thump on the

De Palma's Clean Sportsmanship Cheered

inuninjumanununanan memaangajana amerikesena

The day's sport at Sheepshead Bay, July 4, started with the Wilcox-de Palma match race, which ended with de Palma's discovery, after the first heat, of a cracked piston, which he was not able to repair during the progress of the big race, so as to finish the match. In the single heat, however, the cars ran wheel to wheel throughout most of the five laps, coming across the tape so close that the officials were not unanimous in announcing a victory for de Palma by one foot.

Then the crowd witnessed an exhibition of the sort of sportsmanship which has been an important contributing factor to the popularity of automobile racing, when de Palma, declaring that Wilcox had preceded him over the line by at least three or four inches, insisted on a reversal of the decision, in which the judges acquiesced, while the grandstand applauded. This gave Wilcox the new 10-mile record, which he failed after the big race to equal in a five-lap exhibition spin.

second turn and he was forced to the pits, later quitting the race and going to the garage.

Tire Trouble Wilcox's Only Handicap

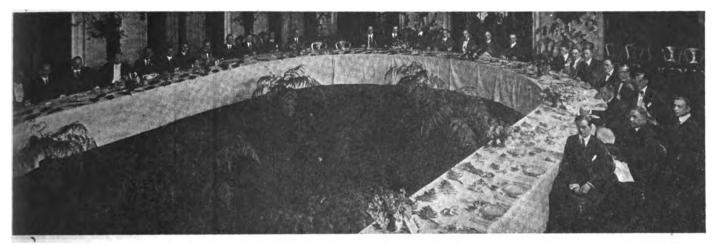
Wilcox made three stops, the first in the ninth lap, when he was running third, close in the wake of the bitterly battling Frontenacs. The halt, to change a tire, cost him half a lap, but the Peugeot pilot plunged gamely into the grind and was nearly up with the leaders when another tire went flat. Taking the track again, he ranged alongside Chevrolet in the fourteenth lap, and until the thirty-eight, paced the Frontenac by half a length in one of the prettiest speed spurts of the day. Then another tire went down, but the pitmen made a lightning change and Wilcox was back in the race for a brilliant drive that brought him across the tape in second place.

Lewis Changes Spark Plugs

Lewis, who made the first few laps in fourth and third places, finished third despite three halts, two to change tires and one to replace five spark plugs which were flooded with oil during one of the stops for tire trouble. The Meteor rolled up to the pits in the fifteenth lap, with a front tire down. The mishap was repeated at the end of the thirty-fifth mile and Lewis had gone only a few laps after this halt when the spark plugs went bad. The adjustment seemed to have put him definitely in the second division, but Dave put on all the speed latent in his Deusenberg eight and swept into third place.



Manhattan Truck Dealers Get Together



The Dealers' Division of the Motor Truck Association of America met at dinner in the Biltmore Hotel, New York, June 26 and founded the Metropolitan Dealers' Motor Truck Exchange. Those in attendance, reading from left to right, were:

J. G. Donaldson, Menominee Motor Truck Co., New York; A. M. Welch, Reo Motor Car Co., New York; J. H. Sharkey, Metropolitan Motor Truck Bales Co., New York; C. J. Hughes, Master Motor Truck Co., New York; G. H. Kemp, manager Highway Transportation; E. H. Schneider, Paige-Detroit Motor Car Co., New York; Paul Campbell, New York Motor Truck Sales Corp., Robert D. King, Acason Motor Sales Co., Brooklyn; F. W. Crane, New York Times; C. H. Corey, New York Motor Truck Sales Corp., New York; O. E. Nathan, Raskin Brothers Motor Truck Sales Co., New York; F. B. Kurtz, Harrolds Motor Car Co., New York; Bugene P. Herrmann and Edward Herrmann, Herrmann Motor Truck Co., New York; Charles G. Bond, counsel, Motor Truck Association of America; W. R. Cowch, president, Cowch-Haas Co., Brooklyn; T. D. Pratt, executive secretary, Motor Truck Association of America; W. H. Moore, Garford Motor Truck Co.,

New York; Capt. H. E. Listman, Garford Motor Truck Co., New York; Roderick H. Jones, Foster-Roskam, New York; E. A. Hoffmann, Arlington Motors Corp., New York; W. O. Crabtree, Graham Brothers Sales Co., New York; Fred G. Cole, Jr., Cole & Dixon, New York; J. A. Inness, Brockway Motor Truck Co., New York; H. P. Risbrough, R. B. Taylor Corp., New York; J. G. King, Vim Motor Truck Co., New York; H. H. Skerrett, Jr., Republic Motor Truck Co., New York; B. D. Arthur, Schacht Motor Truck Co., New York; B. D. Arthur, Schacht Motor Truck Co., New York; G. A. Cavanagh, Highway Transportation; W. G. Walburn, Walburn Motor Truck Co., New York; G. A. Cavanagh, Walburn Motor Truck Co., New York; G. M. Walburn, Walburn Motor Truck Co., New York.

WOULD REMOVE ALL AUTOMOBILE TAXES

N.A.C.C. Petitions Congress to Repeal Discriminatory Law —Truck Tax 3 Per Cent

NEW YORK, July 5—Coincident with an announcement that Representative Kraus of Indiana had introduced in Congress a bill to insure limitation of the revenue tax on motor trucks, chassis and parts to 3 per cent of the manufacturers' sale price, the National Automobile Chamber of Commerce announced to-day that resolutions had been adopted and forwarded to members of Congress urging repeal of the special levy on all classes of automotive products.

The Kraus bill, intended to eliminate the taxation of parts and chassis for motor trucks on the 5 per cent basis applicable to passenger cars, provided in the present bill, because of the contention of revenue experts that certain of these classes of products might be used on passenger as well as commercial vehicles, specifically names "automobile trucks, automobile wagons and chassis thereof (including tires, inner tubes, parts and accessories therefor)," as coming within the 3 per cent rate.

In its petition for the repeal of the automobile taxation clauses, as a whole, the N. A. C. C. terms the measure dis-

criminatory, through the fact that similar assessments are not laid upon manufactured articles generally. Quoting the recommendation of President Wilson in his message to Congress in favor of the elimination of the taxes, the association declared that the levies were burdensome on the industry in its efforts to resume operation on a peace basis.

Wichita Tractor Entries

CHICAGO, July 3—Up to July 1, according to announcement made by the National Implement and Vehicle Association, there are 49 companies entered in the National Tractor Demonstration to be held at Wichita, Kan., July 14, 1919. The entries follow:

Advance-Rumely Thresher Co., La Porte, Ind. Allis-Chalmers Mfg. Co., Milwaukee. Aultman & Taylor Machinery Co., Mansfield,

B. F. Avery & Sons, Inc., Louisville, Ky.
Bates Machine & Tractor Co., Joliet, Ill.
Beeman Garden Tractor Co., Minneapolis.
C. L. Best Gas Traction Co., San Leandro, Cal.

Bullock Tractor Co., Chicago.
J. I. Case Plow Works, Racine, Wis.
J. I. Case Threshing Machine Co., Racine, Wis.
Cleveland Tractor Co., Cleveland.

Dart Truck & Tractor Corp., Waterloo, Iowa.
Dauch Mfg. Co., Sandusky, Ohio.
Deere & Co., Moline, Ill.
Eagle Mfg. Co., Appleton, Wis.
Electric Wheel Co., Quincy, Ill.
Emerson-Brantingham Implement Co., Rockford, Ill.

Frick Co., Waynesboro, Pa.
General Ordnance Co., Cedar Rapids, Iowa.
Gray Tractor Co., Inc., Minneapolis.
Hart-Parr Co., Charles City, Iowa.
Hession Tiller & Tractor Corp., Buffalo, N. Y.
Holt Mfg. Co., Peoria, Ill.
Huber Mfg. Co., Marion, Ohio.
Illinois Tractor Co., Bloomington, Ill.
International Harvester Co. of America, Chicago.
La Crosse Plow Co., La Crosse, Wis.
John Lauson Mfg. Co., New Holstoin Wis.

John Lauson Mfg. Co., New Holstein, Wis. Roderick Lean Mfg. Co., Mansfield, Ohio. Minneapolis Steel & Machinery Co., Minneapolis.

Moline Plow Co., Moline, Ili.
Nelson Corp., Boston.
Oliver Chilled Plow Works, South Bend, Ind.
Oliver Tractor Co., Knoxville, Tenn.
Parrett Tractor Co., Chicago Heights, Ili.
Peoria Tractor Corp., Peoria, Ill.
Pioneer Tractor Mfg. Co., Winona, Minn.
Port Huron Engine & Thresher Co., Port
Huron, Mich.

Rock Island Plow Co., Rock Island, Ill.
Royer Tractor Co., Wichita, Kan.
Russell & Co., Massillon, Ohio.
Square Turn Tractor Co., Norfolk, Neb.
Turner Mfg. Co., Port Washington, Wis.
U. S. Tractor & Machinery Co., Menasha,
Wis.

Vulcan Plow Co., Evansville, Ind. Western Tractor Co., Wichita, Kan. H. A. Wetmore, Sioux City, Iowa. Wichita Tractor Co., Wichita, Kan. Wolverine Tractor Co., Saginaw, Mich.

Lancaster Body Builds

LANCASTER, PA., July 5—The Lancaster Body Co. plans to build a factory on the new Holland Pike for the manufacture of automobile bodies.

CHANGES in the Trade

Harris N. Pickett, recently appointed advertising manager of the Ohio Trailer Co., Cleveland, has served the advertising needs of prominent automotive material manufacturers over a period of several years. He was formerly advertising and assistant sales manager of the general Asbestos & Rubber Co. In his new connection he will be particularly interested in the service bureau formed to co-operate with Ohio Trailer dealers.

William Fore, formerly service manager of the Fisk Rubber Co., has taken over the Fisk service station, Detroit, and will operate it under the name of the Super Tire Service Co.

James G. Vedder and F. D. Ernest, recently associated with the Postum Cereal Co., Battle Creek, have purchased the Grand Rapids Battery Shop, Presto-Lite distributor for western Michigan.

G. H. Becker, formerly assistant sales manager of the Chalmers Motor Co., has become associated with Joseph G. Blount, Chalmers distributor at Atlanta, Ga.

Homer L. Schneider, for the past four years general manager of the Republic Motor Sales Co., Cleveland, has joined the truck sales division of the Grant Motor Car Corp.

A. W. King, vice-president and plant superintendent of the Pontiac Body Co., has resigned. He will take a long vacation before making another connection.

H. R. Clime, until recently special representative of the Globe Rubber Tire Manufacturing Co. in the East, has been appointed manager of the company's Chicago branch in charge of the central territory, with head-quarters at 2029 South Michigan Avenue...

Guy W. Vaughn has been appointed vicepresident and general manager of the Van Blerck Motor Co., Monroe, Mich., maker of marine engines. During the war Vaughn was in charge of production for the Wright-Martin Aireraft Corp., making Hispano-Suiza engines. Previously he was assistant to the president and sales manager of the F. B. Stearns Co., Cleveland. He has been engaged in the automotive field for the last 18 years, and at one time made a car bearing his name.

J. C. Witwer, who has been assistant superintendent in charge of production for the International India Rubber Corp.. South Bend, Ind., has been promoted to factory manager. He was formerly with the Kelly-Springfield Tire Co. and with the Goodyear Tire & Rubber Co.

William H. Walker, president of the Walker Mfg. Co., Racine, Wis., died of angina pectoris at his home here on June 21, in his 69th year. He is survived by his widow and three children, Mrs. W. S. Holden and two sons, Willard and Warren.

George P. Coonley is the new district manager for the Paige-Detroit Motor Company, at Kansas City, which has opened its new building at Sixteenth and Oak streets. Coonley was formerly with the J. I. Case Threshing Machine Co. at Racine, Wis., as assistant division manager for the Eastern Division. Owen McCusker, of the local Paige branch, has been transferred to San Francisco, his home city.

H. Y. Chipley, manager of the Oklahoma City branch of the Atlas Tire Co., has resigned this position to take over the management of the Federal Tire & Rubber Co., which will be located at 1, 3 and 5 East Grand Street, Kansas City.

John C. Lewis, Kansas City branch manager for the Paige-Detroit, and prior to that special representative of the Peerless factory, working out of Cleveland, is now wholesale sales manager of the Jackson Motor Co., Kansas City, also handling the Kissel truck.

L. H. Ankerson, district sales manager of the Oklahoma Auto Mfg. Co., Kansas City, makers of the O. K. truck, is making his headquarters with the O. K. Truck Sales Co., local distributer, in the Coca Cola Building.

M. E. Merchant, who has been in charge of the St. Joseph territory for the U. S. Tire Co., Kansas City, has been transferred to Kansas City. N. L. Hall is now covering the St. Joseph territory.

A. W. Solum has been appointed manager of the Southwest branch of the Hudford Co., Chicago. A sales and service station has been opened at 1931 McGee Street, Kansas City, Mo.

Marion D. Waitner has been appointed manager of the southwestern department of the O. K. Truck Co., with headquarters at 2109 Grand Avenue, Kansas City.

E. L. Howard has been appointed sales manager of the G. T. O'Malley Tractor Co., Kansas City, Mo., Fordson distributers in this territory. A new branch has been opened at Walnut Street, where the sales and service departments will be located.

William C. Dudgeon has resigned from the advertising staff of the Campbell-Ewald Co.. Detroit, to go with the Gardner Advertising Co., St. Louis. Dudgeon had an active part in the advertising of Hyatt bearings, Remy electric systems. Harrison radiators. Klaxon horns, and Jaxon rims and wheels.

Commissioner Forrest Frazier of the Tri-City Automobile Trades Association, Davenport, Ia., has resigned and has joined the staff in the local branch of the B. F. Goodrich Rubber Co. at 122 East Fourth Street.

Benjamin G. Gilbough has recently been appointed assistant general manager of the Vim Motor Truck Co. at 1114-1116 South Olive Street, Los Angeles.

E, C, Huyck is the manager for the Southwestern Rubber Co., recently established at 340 West Pico Street, Los Angeles.

Canadians Purchase Chase

TORONTO, July 5—Purchase of the tractor interests of the Chase Motor Truck Co., Syracuse, N. Y., by a Canadian organization headed by the Cluff Ammunition Co., Toronto, has been announced. The plans of the purchaser provide for the organization of a new company to be known as the Chase Tractor Co., to produce the Chase Tractor on a large scale. A large plant will be established at Toronto.

GOOD ROADS A BOOST FOR SALE OF TRUCKS

Whittaker Visits Western Section and Finds That Road Building Helps Sales

DETROIT, MICH., July 5—General interest in motor trucks is of a more substantial nature than ever in the past and business prospects to-day are tremendous. This is the way Don F. Whittaker, assistant sales and advertising manager of the Acason Motor Truck Co., sums up the truck situation after an extensive trip through the East and Middle West.

"Increased interest and enormous appropriations for good roads," he declared, "are playing a vital part in stimulating interest and actual sales of motor trucks. For example, take the state of Arkansas. The road program for this year is so extensive that there are fully three times as many jobs as there are contractors to handle the work. The opportunity presented for profit in good roads construction is attractive.

"Farmers are buying trucks of a larger size, probably due more to the improvement of roads than any other one thing. One, one and one-half and two-ton trucks are the popular sizes."

Dodge Wins Reliability Run

MONTREAL, July 2—A Dodge car driven by Horace Merrill won the three-day reliability drive from this city last week, making 996 out of a possible score of 1000. There were thirty-five entrants.

Tractor Show to Be Popular

TORONTO, July 5—Entries of tractors for the Canadian National Exhibition indicate that the exhibit of farm tractors, tractor drawn and tractor driven tools at the 1919 exhibition will far exceed in number and style of anything in the past.

Goodrich in Japan

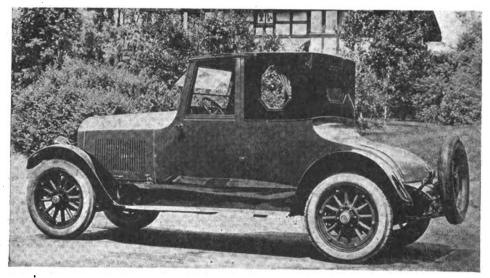
AKRON, July 5—The B. F. Goodrich Co. has organized a tire company in Japan to be known as the Yokohama Rubber Co. The plant is now nearing completion.

New York Stock Exchange Closing Quotations, July 3, 1919

Asked		Did	
86	General Motors ofd	9414	•
102	General Motors deb	77.73	
	Maxwell Meter com	71	
	Maxwell Motor 1st -63	10%	
	Maxwell Motor, 1st pid	75	
	Maxwell Motor, 2d pfd	27	
101	Pierce-Arrow com	EE M	
55	Pierce-Arrow ntd	1057	
	Soron Moton Con	TAD A	
	Saxon Motor Car	11	
	Studebaker, com	1084	
99	Studebaker, pfd	100~	
56	Stutz Motor Car	001/	
187	White Motor	20.74	
	Wille Metor	67	
	Willys-Overland, com	2574	
245	Willys-Overland ned	9¢ /5	
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74			
	86 102 83% 105% 184% 101 55 101 35 99	102 General Motors, deb. 83¾ Maxwell Motor, com. 105½ Maxwell Motor, 1st pfd. 184½ Maxwell Motor, 2d pfd. 101 Pierce-Arrow, com. 55 Pierce-Arrow, pfd. 101 Saxon Motor Car. 35 Studebaker, com. 99 Studebaker, pfd. 56 Stuz Motor Car. 187 White Motor. 117 Willys-Overland, com.	88 General Motors, pfd. 94% 102 General Motors, deb. 91 83% Maxwell Motor, com. 48% 105½ Maxwell Motor, 1st pfd. 75 134½ Maxwell Motor, 2d pfd. 37 101 Pierce-Arrow, com. 55% 55 Pierce-Arrow, pfd. 105½ 101 Saxon Motor Car. 11 35 Studebaker, com. 108% 99 Studebaker, com. 108% 99 Stutz Motor Car. 82% 187 White Motor. 57% 117 Willys-Overland, com. 35% 245 Willys-Overland, nfd. 35%

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The interior of the Cole Sportcoupe is seen at the left, and the right view shows the lines of the new body, with the large side and rear windows. The price of the complete car is \$3,795

GENERAL UPWARD TREND IN PRICES

Cars and Trucks Alike Raised —Locomobile Up \$1400— Other Advances Likely

NEW YORK, July 8—A general upward trend in prices is evidently in progress from the recent announcements of both car and truck manufacturers of advances anywhere from \$50 to \$300 since the first of the month.

Locomobile has announced a greater price jump than any yet received, advancing \$1,100 on open cars and \$1,400 on closed models with still greater increase on special body jobs, necessary, as explained by the company, to maintain and develop production up to customary standard under present costs. The new schedule of Locomobile prices brings the touring car from \$7,000 to \$8,100, the special 4-passenger touring from \$7,100 to \$8,200, the limousine and landaulet from \$8,200 to \$9,600, the chassis alone jumping from \$6,000 to \$7,100 and with custom built bodies coming as high as \$11,000.

Maxwell advance is \$90 on all car types, raising the chassis from \$805 to \$895, and the car models as follows:

	New	Old
Model	Price	Price
Touring	.\$ 985	\$ 895
Roadster	. 985	895
Sedan	. 1,655	1,565
Coupe	. 1,610	1,520

Maxwell 1½-ton truck chassis has advanced \$100, from \$1,085 to \$1,185, and the chassis with cab and windshield from \$1.125 to \$1.225.

Cadillac is up on six out of thirteen of its models, open touring models remaining the same and will probably continue so, but enclosed cars increasing in price from \$100 to \$300.

Studebaker went up \$100 on touring and open models, and \$150 on closed cars;

and Hudson inaugurated an advance of \$125 on all types, with a \$200 rise on the Essex Phaeton from \$1,395 to \$1,595, the 5-passenger Sedan remaining \$2,250.

Chalmers prices are \$120 ahead on 5passenger models and \$150 on 7-passenger, all effective at once, as follows:

	New	Old
Model	Price	Price
5-passenger:		
Roadster	. \$1,685	\$1,565
Touring	. 1,685	1,565
Sedan	. 2,370	2,250
Coupe	2,105	1,985
7-passenger:		
Touring	1,765	1,615
Roadster	. 1,765	1,615
Limousine	. 3,075	2,925
Town Car	. 3,075	2,925
Limousine landaulet.	3,175	3,025
Town landaulet	. 3,175	3,025

Truck advances are also in effect. Autocar has added \$250 to its 97- and 120-in. wheelbase trucks, making the price \$2,300 for the former \$2,050 model and \$2,400 for the \$2,150 model, effective Aug. 1. Rainier body prices remain unchanged, but the following chassis prices will prevail:

		New	Old
Model	Capacity	Price	Price
R-11	%	\$1,750	\$1,550
R-9	1 '	1,875	1,790
R-6	11/2	1,975	1,890
R-8	2	2,400	2,250

All Rainier models now have Continental engines and Brown-Lipe clutch and transmission. The %-ton has 35 x 4½ pneumatic tires and heavier Timken worm-driven rear axle. Bosch electric lighting equipment is furnished as an extra at \$125.

The Maxwell 1½-ton chassis, as already stated, has advanced \$100, from \$1,085 to \$1,185, and with cab and windshield, from \$1,125 to \$1,225. The White Co. has raised the price of its ¾-ton truck chassis from \$2,300 to \$2,400, and its 3- and 3½-ton from \$4,100 to \$4,300. The 2-ton remains \$3,300, the 5-ton \$5,000.

COLE ADDS A SPORT-COUPE TO ITS LINE

Will Sell for \$3795—Seats Two or Four Passengers—Many Conveniences

In bringing out the Aero-Eight Sportcoupe the Cole Motor Car Co., Indianapolis, has followed the same flush panel construction which characterizes the larger Cole enclosed cars. The newest body has a long sweep of line and the rear quarter sections are solid with large permanent octagonal windows which afford full vision from both sides of the car as well as the rear.

The seating is staggered so that the driver sits slightly forward. There is room for two passengers beside the driver and an auxiliary seat folds up under the cowl so that the car really has a seating capacity of four. Among the conveniences to be found in this model are window regulators which make the glass panels adjustable to any height, corner lights, dome light operated automatically by the opening and closing of the doors, floor heater and large baggage compartment.

A choice in finish is had in the selection of either American flag blue or aero gray with the rear quarter panels in black. The upholstery is in mohair velvet and in every case the color harmonizes with the exterior finish. The interior accessories and hardware blend with the color scheme. Wire or steel wheels are to be had as optional equipment at an additional price.

Maibohm Getting Production

SANDUSKY, OHIO, July 1—The Maibohm Motors Co., which recently moved here from Racine, Wis., is getting into good production. The company is turning out forty complete cars weekly, which is the capacity of its present temporary quarters.

COMING EVENTS

Races, Contests and Tours

Uniontown, PaJuly 19Midsummer Meet, Speedway Yakima, WashJuly 25-28Fifth Annual, Washington Automobile Chamber of
Automobile Chamber of Commerce. Sheepshead Bay, N. Y. July 26
mobile Dealers.

^{*}Tentative dates

Meetings

Philadelphia, PaSept. 22-24	Annual Convention, National Association of Purchasing
Atlantic City, N. JOct. 14-17	Agents, Bellevue-Stratford. Twenty-fifth Annual Conven-
	tion, Marlborough - Blen- heim, National Hardware Association of the United
Chicago, IllNov. 3-8	StatesC o n v e n t i o n, Automotive Equipment Assn., Medinah
•	Temple.

Foreign Shows

Paris, France	Oct. 15	Grand Palais-International
•		Automobile Manufacturers'
fonden The	Nov 7-18	CongressOlympia Exhibition, Society
		of Motor Manufacturers &
		* Trades.

Tractor Demonstrations

Wichita, KanJuly 14-19Automotive Committee National Implement A	
Columbus, OJuly 28-29In charge of Prof. H	····
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cultural Engineering 1	Jeut Zerra
of Ohio State Univer	mitv
Piqua, OAug. 1-2In_charge of Prof. H	- C
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Fostoria, OAug. 6-7In charge of Prof. H	Č
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Akron, OAug. 12-13In charge of Prof. H	Č.
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of Ohio State Univer	reity
Aberdeen, S. DAug. 18-22 Sectional Tractor Der	non-
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Streator, IllSept. 9-12Northern Illinois Tracto)T 🕭
Truck Assn. W. S. P.	eter-
_ man, Manager.	
Ottawa. OntOct. 14-16 Tractor and Farm Mac	
ery. Experimental	and
Booth Farms.	

Ottawa. Ont., Canada...October 14-16...Inter-Provincial Plowing Match and Tractor Demonstration.

Shows

Greenville, S. CJuly 14-19Agricultural Implement	æ
Tractor Exposition. F.	M.
Burnett, Manager.	
MinnesotaAug. 80-Sept. 6. State Fair.	
Indianapolis, IndSept. 1-6State Fair. Cars and Acce	40-
coming This tribution I will be a fine and I will b	-
series. Indianapolis Au	m.
mobile Trade Assn., Jo	ממי
B. Orman, Manager.	_
Greenville, S. CSept. 1-6Agricultural Implements a	ıng
Tractors. F. M. Burne General Manager.	ett,
General Manager.	
Cincinnati, OSept. 13-20Ninth Annual, Music Hi	علله
Cincinnati Automob	ile
Dealers' Asen., H.	¥
Shockley, Manager.	-
Springfield, MassSept. 15-20 Eastern States Exposition.	•
Springheit, mass,Sept. 10-20 Eastern States Exposition.	٠.
O. Simpson, General Ma	m.
ager.	
Detroit, MichOct. 6-11Closed Cars: Detroit Deale	LS.
Assn., Crosstown Garag Chicago, IllNov. \$-8Business Exhibit of Auton	8.
Chicago, IIINov. 3-8Business Exhibit of Auton	10-
tive Equipment Assn., M	le-
dinah Temple.	
New York, N. YJan. 8-10 Grand Central Palace, N	Ia.
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ber of Commerce, S.	-A
Miles, Manager.	-
Chicago III Ion 94-91 College Core Decrei T	-
Chicago, IllJan. 24-31Coliseum, Cars: Drexel F vilion; Trucks, Nation	
Villon; Trucks, Nation	4
Automobile Chamber	
Commerce, S. A. Mil	.05 ,
Manager.	
Kansas City, MoFebFifth Annual, Kansas C	
Tractor Club, Guy H. He	ell.
Manager.	

Automotive Shows at Fairs

Des Moines, IaAug. 20-29Machinery Hall. Hartford, ConnSept. 1-5Connecticut Fair Assn.
Rochester, N. YSept. 1-8Automobile Club of Rochester. E. F. Edwards, Manager.
Milwaukee, WisSept. 8-18Milwaukee Automobile Dealers, Inc. Bart J. Ruddle, Manager.
Topeka, KanSept. 8-13Cars, Trucks and Tractors. Motor Hall and Machinery Field.
Syracuse, N. YSept. 8-13Cars, Trucks and Tractors.
Peoria, IllSept. 12-20Cars, Trucks and Tractors.
Hutchinson, KanSept. 18-20Cars, Trucks and Tractors.
Allentown, PaSept. 15-20Lehigh County Agricultural
Springfield, MassSept. 15-20Cars, Trucks and Tractors. O. A. Nash, Asst. Gen. Manager
Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors. J. S. Malone, General Manager.
Pueblo, ColSept. 22-27Cars. Trucks and Tractors. J. L. Beaman. Manager.
Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. H. George, General Manager.
Chattanooga. TennSept. 29-Oct. 4. Chattanooga. Auto Dealers.
Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Dealers Assn.
Raleigh, N. COct. 20-25Cars, Trucks and Tractors.
Shreveport, LaOct. 22-27 Cars. Trucks and Tractors.

Ohio Trade Active in Lawmaking

COLUMBUS, OHIO, July 3—The manager's report to the board of trustees of the Ohio Auto Trade Association of activities for the first half of the year showed a constantly increasing membership.

Two legislative bills which were detrimental to the automotive interests were killed through the efforts of the association. A bad check law was submitted to the Legislature by the association and was incorporated in the banking code.

A speakers' bureau has been established, and an accounting committee is

working on a system for garages, repair shops, etc.

It was voted to hold the next annual convention at Cleveland, Dec. 3, 4 and 5.

New Trailer Prices Fixed

CLEVELAND, OHIO, July 5—The Ohio Trailer Co. has announced prices of its new models described in Motor World of March 12. In the two-wheel class the 800-1000 lb. model is offered at \$110; the 1250-1500 lb. model at \$140. The models rated at 1500-2000 lb. capacity sell for \$185, with stake panel

bodies, at \$200 with cattle rack body. The four-wheel trailers produced up to date have included a two-ton model at \$890, a three-ton model at \$1,145, and a five-ton at \$1,680. The 1500-2000 lb. model just announced sells for \$375 with cattle rack body, and \$350 with panel body.

Buick Takes Back Service Men

FLINT, MICH., July 5—The Buick Motor Co. has given employment to 1400 returned soldiers and is re-employing them at a rate of nearly 300 a month, or fifteen a day.

Passenger Cars
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Volume LX Number 3

PUBLISHED WEEKLY AT 239 WEST 39th STREET NEW YORK, JULY 16, 1919

Fifteen cents a Three dollars a

What Hudson Prestige RECEIVED Means to You

U. S. RUBBER CO. LIBRARY

How Much of Your Capital Can You Class As Good Will?

If you were to retire from business tomorrow, how much would your successor pay you for your good will?

As an automobile dealer you cannot be content merely with selling a car now and then. You must stand in your community as one of the men on whose service and product it can rely. Then your prospects will come to you. They will search you out, and you will think of sales in figures that appalled you before.

The surest way of building prosperity and a certain future is to tie yourself up with a company whose product itself breathes the atmosphere of excellence, of good standing and superior quality.

World famed, the Hudson Company's good will means more to you than immediate profits, though, in Hudson dealership these are always assured. Connection with the Hudson Company means certain growth. Backed by the world's largest selling fine car organization, with a car whose record is unequalled for achievement, you will prosper just as all our dealers have prospered—if you are of the Hudson dealer type.

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That should interest you.

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Hudson Motor Car Company

Detroit, Michigan



THAT buyers in many localities are recognizing that the demand for the Nash Six with Perfected Valve-in-Head Motor is unusually heavy throughout the country, is evidenced by the fact that they are placing orders for delivery two and three months ahead. This, of course, means that Nash dealers are finding the Nash franchise an unusually valuable one to hold.

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One-Ton Chassis, \$1650 Two-Ton Chassis, \$2175 Nash Quad Chassis, \$3250

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(PATENTED)



The purchase of a car, a truck, a tractor, or a power boat is a purchase of service. The returns on the investment come in pleasure or profit from the service rendered. And so small a thing as the bearing in the magneto or lighting generator may curtail service and reduce investment returns.

Car, truck, tractor and power boat builders, of notably high repute, whose product is known for its service capacity, use "NORMA" -equipped magnetos and lighting generators. They know that "NORMA" is identified with dependable electrical apparatus.

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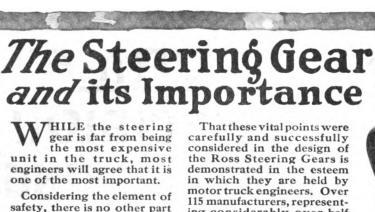


THE NORMA COMPANY OF AMERICA

1790 BROADWAY

NEW YORK

Ball, Roller, Thrust and Combination Bearings



safety, there is no other part upon which so much dependence must be placed. Every minute that it is in operation, the safety of the truck and its load depends largely upon the steering gear.

The steering wheel is the chief point of contact which the driver has with his truck - the mechanism through which he knows it most intimately. He will like it or dislike it and his efficiency will be increased or decreased according to the ease with which the truck steers.

ing considerably over half the industry, are now using them as standard equipment, among the number being many of the largest and best known makers in the country

The special feature of Ross Gears which distinguishes them from all others is the screw and nut mechanism which transfers the rotation of the steering wheel to the steering arm. The nut is a solid piece, completely enveloping the screw, so that the entire bearing surfaces of the threads of both screw and nut are utilized.



This screw is completely en-veloped by the nut, thus uti-lizing all of the bearing sur-face of every thread in both

screw and nut.

These enormous bearing surfaces, together with the quality of Ross material and workmanship, guarantee easy steering and reliable and satisfactory service.

Write for catalog and any special information desired.

The Nut

This nut travels up or down inside the steering gear housing, rotating the cylindrical discs in their recesses. These discs re-

ceive the projecting arms of the trunnion shaft and rotate it in turn.

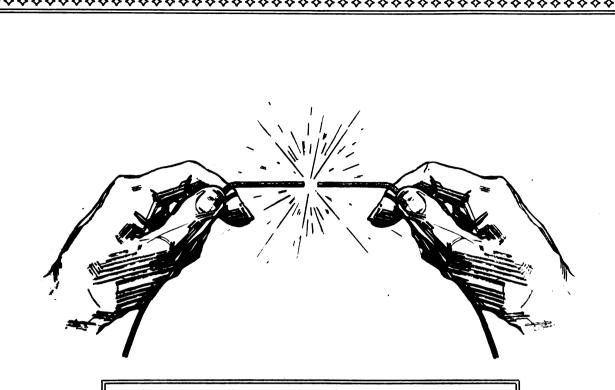
Ross Steering Gears with other designs in which only three or four teeth are in con-tact at one time.

The Trunnion Shaft

This shaft moves the steering arm forward or backward when it is rotated, through its project-ing arms by the rotation of the cylindrical discs in the nut.

The Steering Gears that PREDOMINATE **Motor Trucks**

Ross Gear & Tool Company, 725 Heath St., Lafayette, Ind.



Live Contact

Thousands of aggressive business men in the United States sell all manner of automotive equipment—cars, trucks, tractors, accessories and supplies.

These thousands are classified as dealers, jobbers and garage owners.

Their point of contact with the industry is MOTOR WORLD, which is designed and edited exclusively for men who buy at wholesale and sell at retail, all products of the automotive industry.



A New and Better Ignition System

RAY & DAVIS Ignition establishes a very high standard. It is not an experiment, but the completed result of 4 years' intensive engineering effort to create a better, simpler and more dependable system. Leading automotive engineers voice the opinion that the G & D system ignition rightfully takes its place as the foremost product of its kind—the finest equipment the industry produces.

GRAY & DAVIS INC.

BOSTON MASS.

Vol. LX

New York, U. S. A., Wednesday, July 16, 1919

No. 3

Two Books in One



EDUCATION Means:

- 1—Less Costly Service
- 2—Greater Profit for the Dealer
- 3—More Sales of Cars, Trucks and Tractors

Wherefore, says an old dealer, who has turned teacher, both dealers and manufacturers should give more attention to educating the public in motor operation and mechanics.

OTOR knowledge for the operator and owner of trucks, tractors and passenger cars is a new factor that has come into the field of successful automobile salesmanship. The industry to-day, with its varied and perplexing problems, demands larger education and more complete training, not only for those who would engage in it actively but for owners and drivers as well.

Motor World believes that knowledge and yet MORE KNOWLEDGE, with the building up of good automobile and tractor schools through co-operation of manufacturer, dealer and consumer, is imperative. Big strides toward the solution of many questions now before the trade would be taken as a result of more capable and competent technical education. Among these are:

Partial elimination of the free service bogy.

Reduction of sales costs and overhead.

More and better mechanics—the absence of which causes distrust and lack of confidence upon the part of buyers and owners.

The opening of larger fields for the sale of trucks, tractors and cars.

A start already has been made, particularly in the Central and Northwest sections of this country, in the opening of trade schools and the installation of automobile courses in universities, colleges and agricultural schools. But this has been done without co-operation—or at least but little-from the industry itself. Dealers seem to have taken not enough interest in the better schools, and most of these schools have sprung up without assistance or guidance from those who should be most interested.

"Learn!" He Says



AUGUST HANSON

President of Hanson's Tractor and Automobile School, Fargo, N. D. Prac-tical knowledge of cars, trucks and tractors will, he says, solve some of the most perplexing problems of the automotive industry. He urges every man's support for education

Increasing the general knowledge of motors is before the industry to-day as a trade necessity that cannot be overlooked in any plans looking for more profits in 1920 and the coming years. And this does not mean only two- or three-day demonstrations and courses for dealers and buyers but worth-while. active courses for the thousands of young and old men who are demanding knowledge of automobiles and tractors. The last few years have shown that these men are willing and more than anxious to spend a few weeks to obtain this training.

Why should they not be helped? August Hanson gave up the position as manager of branch at Fargo, N. D., of the J. I. Case Threshing Machine Co., that he had held for fifteen years. On Nov. 1, 1918, he opened Hanson's Tractor & Automobile School in that city. Fourteen hundred students already have completed his courses since that time and the school has been forced to enlarge its quarters. It endeavors to teach all branches of tractor and automobile work, not by easily forgotten lectures and short talks, but through actual demonstration and first hand work. A large per cent of all the students have been farmers who had no other thought than the operation of motor equipment upon the farms of the Northwest. Only a small number have gone into the industry, in the capacity of mechanics or garagemen.

The farmers are potential buyers who, because of their knowledge, will be wideawake customers.

"I have studied the tractor situation thoroughly and feel positively that the sooner the tractor manufacturers cooperate with their dealers in urging purchasers to get a mechanical training, the sooner will the tractor business be placed on a solid foundation," Hanson says.
"The purchasers will be 'boosters' and

(Continued on page 10)

171 Arguments for Trade Education

The 171 Keen-Faced Men on This Page Thronged a Fargo Automotive School Before It Was Four Months Old



There are 48 men in this section of the picture. They are dressed in shop clothes. Most of them are farmers from the country about Fargo. Many of them traveled hundreds of miles to study tractor operation



There are 72 men in this part of the picture. When they get back home their knowledge will mean hundreds of dollars saved to the dealers through service that these men can perform for themselves. Hanson sits in the center



In this section of the group are 51 men. Study their alert faces. Every man has left his business to go to school—and is paying money for the privilege. If men want education that badly why cannot this trade aid in every possible way to promote good schools for automotive machinery operators and thereby cut service costs?

will never, or seldom, call upon the manufacturers or the dealers for expert services."

Ignorance on the part of salesmen and dealers has cost many sales as customers have lost interest and become dead prospects when they have found that men in the trade have not had expert knowledge of the motors they were attempting to sell. Ignorance in the service departments has ruined many cars, both new and old. And the same sort of ignorance has caused many customers to lose faith in their cars, to the future loss to manufacturer, dealer and repairman, because of a lack of practical knowledge of the principles of driving, upkeep and repairs.

Training Is In Great Demand

This takes in both the tractor and the car field. Consequently, the courses at the Hanson school fall under those two heads. The tractor work includes training on magnetos, carbureters and other parts and actual work with many makes. The automobile course covers starters, generators, magnetos, carbureters, wiring, timing, storage batteries vulcanizing, tire work, welding and general repairing.

"In the last few years," Hanson continued, "many of the leading tractor manufacturers have, during the winter months, conducted a two- or three-day free service school in order to educate their dealers as well as their customers how to handle their particular tractor properly, most economically and to overcome any troubles that may arise. Lectures are given, some of them being illustrated by lantern slides, but very few practical demonstrations are made. For this reason, those who attend have forgotten their instructions when they want to use their tractor in the field four or five months later. True, many of the bright ones are benefited some, but, on account of the lack of practical training the expected results are not brought about.

"Farmer boys in the Northwest are hungry for a mechanical training. They do not seem to take much interest in schools where lectures and book work are given, as they want practical training. IT IS UP TO THE MANUFACTURERS AND THEIR DEALERS TO CO-OPERATE IN URGING ATTENDANCE AT SOME UNIVERSITY, AGRICULTURAL COLLEGE OR TRACTOR AND AUTOMOBILE SCHOOL WHERE THIS ACTUAL TRAINING MAY BE HAD."

More Sales with Knowledge

Thus would be provided men who have the necessary knowledge to handle the problems that arise in the motor industry, as mechanics, servicemen, repairmen and operators. The man who knows is always an infinitely better helper, or customer, as the case may be. With farmers having wide knowledge of the motor the sale of tractors and cars becomes much easier and larger and dealer and manufacturer alike will profit thereby.

"It would be a big saving for both dealer and manufacturer if, at the time the sale is made, the dealer would promise the purchaser that, if he will attend some school to get this practical training, he, the dealer, would pay part of his tuition," Hanson believes. "Such a customer would have success with his tractor and would be a 'booster' for it. He would not call upon the dealer or the manufacturer for expert assistance. It would mean the sale of more tractors of that make in his locality for the reason that the neighbors would note his success and naturally would purchase the same make.

"Manufacturers should not expect their dealers to give free or continual services to customers. In the first place, dealers often are not mechanically trained. In the second place, they have difficulty in obtaining trained mechanics. Good mechanics demand big salaries and the

Sells Trucks in the Small Town

GUTHRIE CENTER is a town in Iowa that boasts of no more than 1600 inhabitants. It is in a hilly section of the state and the roads through its farming district are none too good—these two facts being evidence that Guthrie Center is not an ideal place in which to sell motor trucks.

But the Foster Auto Co., not daunted by handicaps but pushing ahead under the leadership of T. J. Foster, found that it was possible to sell twenty-five trucks during the last twelve months. Wherefore Foster and his son-in-law, William Southwick, have reputations throughout Central Iowa as small-town salesmen of commercial cars. Little hauling is done in their county now other than by truck and indications are that less and less will be done by horse each year that the Foster concern continues its present good work.

"Go to the Prospect"

Foster is the oldest dealer in his section, but that doesn't mean he is not the most active. He sells Stewart and Dodge-Graham trucks and Reo Speedwagons. Most of his sales are to farmers for the hauling of stock and the handling of grain. But tile haulers, oil deliverers and draymen also have had a big share in the Foster business.

"Don't make the people look for your trucks but put them where they can't help but be seen," Foster sums up his experience. He goes wherever he can find the crowds. The county fair, the carnivals and the circuses that draws crowds into Guthrie are always well attended by Foster, driving a truck. He doesn't believe in making a prospect hunt for his exhibit but believes rather in taking the exhibit to the prospects. Then he sticks to the potential customer until the sale is closed or he is absolutely convinced there is no possibility of success.

dealer, upon present commissions, cannot afford to employ such men to give free service. Because the dealer is expected to give such service on the compensation he receives is one reason he usually represents a different company each selling season."

In the simplest terms, Hanson proposes that dealers and manufacturers get behind the better schools, either trade establishments that have proved their worth or the universities and colleges that are giving practical training. Some of the agricultural schools, he believes, have not been giving the kind of courses that really teach motor fundamentals.

Associations Must Aid

This can be overcome by the trade itself through proper co-operation in INSISTING THAT ONLY PROPER TEACHING BE COUNTENANCED.

The kind of a trade school that should not survive, of course, will fail, Hanson says, as its methods soon would force it out of competition with those more alert and more practical.

Knowledge of automotive things, if more widespread, can have only the one practical result, this man thinks, of bringing about more confidence and trust in the car and the tractor. The time of haphazard ignorance definitely has passed, in this manner of thinking, to the new industry with its standards of competency, alertness and better business methods.

Schools, methods of teaching and all that comes within the scope of education demand the attention of the entire industry and particularly of the dealers. In education lies the solution of costly problems and the way to Greater Profits.

A FACTOR THAT CAN SERVE THE INDUSTRY TO ADVANTAGE HERE IS THE GROUP OF ASSOCIATIONS, LOCAL AND NATIONAL. LET EVERY ASSOCIATION INTEREST ITSELF IN SCHOOLS. LET US INVESTIGATE SCHOOLS ARE GOOD AND WHAT ARE NOT, SO THAT IT CAN DIRECT THE KNOWLEDGE-SEEKING CUSTOMER TO A PLACE WHERE HE CAN BE MADE A GIVER OF HIS OWN SERVICE.

GET YOUR ASSOCIATION STARTED—

NOW.

Annual East Michigan Pike Tour

DETROIT, July 10—The annual East Michigan Pike tour started yesterday with nearly 50 cars leaving Detroit on the trip which ends at Sault Ste. Marie next Saturday. The tour is being conducted by the Detroit Automobile Club, and in the past has been a factor in promoting better highways along the Huron coast. As Michigan has voted to spend \$50,000,000 to complete the trunk highway system of the state, this will probably be the last tour of its kind that will be held.



And Now Comes the Argonne Four

ITH the advent of the Back-to-Business regime it has been anticipated that there would be new models of old cars and also new cars. Several of the new creations of well known lines have already appeared and now to the industry's list has been added one of the expected new ones—the Argonne Four.

The Argonne is new in name and new in merchandising features. Made in Jersey City, N. J., which never has been famous as a motor car manufacturing metropolis, the car sells at \$4,000 and aims at a buying clientele close to the top of the list in purchasing power. The designer's aim has been to create a product with quality talking points and an atmosphere commensurate with the price.

The company plans to make 300 cars between now and Jan. 1. Deliveries will begin Sept. 1.

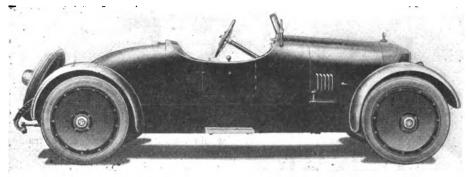
One of the unusual things in the sales point line is a guarantee of "70 miles an hour and better than 20 miles to the gallon." In appearance the car also is different from the conventional style, having a foreign-looking body with a V radiator and a little dash of louvres on the rear end of the hood sides.

The two-passenger stock body is fuse-lage-shaped and done in gun metal gray with satin finish, and accompanied by wire wheels, but special orders will be taken for four- or six-passenger bodies. A wheelbase of 119 or 132 in. will be given with either capacity of body. Disc wheels and colors are also at the choice of the buyer.

The transmission is four-speed, with direct on third and the fourth and overstep. The company rates the car at 50 h. p. The car is built to look and go fast.

The service brake is applied to the transmission instead of to the rear wheels, the double emergency brake is at the rear wheels. The carbureter, it is stated, has a vacuum action of its own and draws fuel directly from the rearend gasoline tank. There are no auxiliary gasoline feed systems.

Its motor is a mono-block casting, L-head type, with a bore of 3% in. and a stroke of 5% in. The pistons are Magnalite, fitted with three rings, while the carbureter is of the Argonne-Gillis Vacuum type, drawing gasoline auto-



The new Argonne Four is built to look its part of a speedy, high-priced roadster. Wire or disk wheels are optional, as are colors and various other details

matically from the 21-gallon tank hung at the rear of the car.

The clutch is a special design singleplate, dry disc enclosed in a dustproof casing. The crankcase is of aluminum,

Sales Points of the Argonne

70 miles an hour guaranteed.
20 miles per gallon guaranteed.
Speedy body lines
Optional bodies, colors and wheels at special prices.
Transmission brake.
Low center of gravity.

three bearing, and the crankshaft of chrome nickel steel, fully counter-balanced. The frame is tapered, wide in the rear and placed directly over the springs to prevent body sway, and narrowed in front to allow short turning radius. The rear springs are underslung, lowering the center of gravity and permitting higher speeds.

Starting and lighting is by a 12-volt Westinghouse two-unit system with Bendix drive. Tires are 32 x 4, Silvertown straight sides. The car is made by the

Argonne Motor Car Co., Jersey City, N. J.

Chicago Garage Owners Act Against Unscrupulous Agents

CHICAGO, July 14—The Chicago Garage Owners' Association, electric division, has adopted resolutions declaring trading in used electric automobiles by other than manufacturers or established used car dealers is an impediment to the development of the electric pleasure vehicle industry. In an effort to put a stop to dealing in these machines by persons outside the recognized trade, the association has requested its members to post notices on the subject.

The resolutions declared that almost invariably electric cars sold by irresponsible agents were taken sooner or later to garages, in dilapidated condition, with the result that heavy repair expense imposed upon the owner often created distrust in the garage management and dissatisfaction with the electric vehicle as compared with gasoline cars.

Book Review

The Auto Electrician's Guide—Price \$7.50. Michigan State Auto School, Detroit. Contains 850 wiring diagrams covering every system of wiring in use up to and including 1919 cars. There are 286 internal wiring circuits which give complete information on the internal wiring of generators, controllers, coils, starters, switches and other electrical parts.

The book is made up in loose-leaf form so that additional diagrams can be inserted in the correct place. The diagrams are printed in black on white paper.

În addition to the modern diagrams, there are diagrams for many of the older cars back to 1906 and also diagrams of electric cars and pipe diagrams of steam cars.

Rolls-Royce Head in Country

NEW YORK, July 12—Claude Johnson, managing director of Rolls-Royce, Ltd., arrived here yesterday from London for a conference with American representatives of the famous British motor corporation. He was not at liberty he said, to discuss the company's American affairs.

Specifications

Carbureter. Argonne-Gillis Vacuum
Starting and Lighting
Westinghouse, 12-volt, 2-unit
CoolingThermo-syphon
Clutch......One-plate, dry disc
Speed.....Four, direct on third
Wheelbase119
WheelsWire

Equipment includes Hartford shock absorbers, Waltham clock and 80-mile speedometer, two motor lights under hood, inspection light with cord, dash fuel meter with trip and season consumption, tools and usual fittings of high-priced cars.

Let the Soldier Tell the Story of



GOOD ROADS

EARLY two million Americans have returned from France, converts to the principle of the macadamized good roads they have seen and used and

motored over throughout that war-torn country. Have you thought of these returning wearers of the olive drab as potential good roads boosters and have you realized how their energies and their experiences may be cashed in for the big campaigns that must be waged in the improvement of the highways of the United States?

Hundreds of states, counties and local districts will vote this summer and fall on bond issues for road work. The totals seem staggering in their entirety but each length of road made better and each broken bridge or culvert repaired or rebuilt means dollars in the pockets of motor car dealers and salesmen. This work cannot be overlooked by the man who seeks to better his business and to make more money in 1920.

This article is being written for the purpose of outlining to the automobile trade how these former soldiers may fit into the big job of making real roads throughout the United States and how they may be utilized in the demonstration in every hamlet, village and city of this country the doctrine of highway betterment. For they have seen the roads of France, thousands upon thousands of miles,

The man who has been overseas knows the value of good roads. Use him in promoting improved highways. The ex-fighter believes the roads of France helped to save civilization. The future must see big systems built in America.

properly built and kept in repair, upon which it is possible to drive from boundary line to boundary line—north, south, east and west—without encountering at any place, except perhaps in the invaded districts over which the contending armies fought for years, a stretch of route to hold up the speeding motor car or the heavily-laden truck.

It is trite, of course, to say that the roads of France saved the Allied cause. No one can doubt that who has seen the vast truck trains functioning in their work of supplying the fighting forces, or who is familiar with the manner in which divisions and corps were shifted from battlefield to battlefield in the great drives that culminated in the German col-

lapse. Without these roads, upon which engineers and labor troops worked incessantly to keep in repair, the confusion and utter impossibility of movement would have meant pos-

sible disaster, and loss of the cause of civilization.

The American Expeditionary Forces depended upon the motor car and truck to an extent little comprehended in this country, as did also the other fighting armies. Great strings of trucks were in daily operation from the farthest points in the rear of France up to the actual front, aiding the railroads in long hauls or delivering supplies and equip-

ment to camps and villages not touched by the rail lines.

It was nothing unusual for a driver to start out on a trip of one, two or three hundred miles through territory he did not know or had not traversed previously. But he could drive away with a certainty of reaching his destination, not burdened by fear of impassable roads or the possibility of becoming lost, in a manner amazing to the man who was accustomed to the dirt road3 and poor bridges of the average American rural community.

France has a network of macadamed roads linking each town, each marked with guide signs and distance posts that made straying off the route almost impossible. The United States, except in isolated sections and in the more thickly-populated sections, has nothing to compare with such a system. Its duplication is one of the big tasks in the future of this country and the automotive in-



dustry must take the lead in the building up of this kind of network in America.

"The Sacred Way" to Verdun

The roads of France were built in peace time and the maintenance services established in the years before the Great War. They were built mainly for commercial purposes under the supervision of a special department of the government that maintains its own highway and bridge departments. Road engineers are trained in these schools in a profession that scarcely has a counterpart in this country. Then upon each department—France being divided into

The photographs

these pages were made in

France by members of the

A. E. F. On the preced-

ing page is shown a

camouflaged road on the

Champagne front. The

picture in the lower left-

hand corner of this page is

of a French transport train proceeding to the

Soissons fighting in March,

1918. The other pictures

are American truck trains.

departments somewhat similar to the states of the United States, although much smaller and somewhat more numerous — was forced to construct and repair certain roads.

The national government has built the greater national routes, totaling some 22,000 miles, that radiate from Paris to each of the big frontier towns. These are roads that, with ditches, have a width of about twelve yards, the roadway proper being about

three yards less. To these are linked up the thousands of miles of departmental roads. Then come the even more numerous and longer routes maintained by the smaller communities and villages.

The American in France, whether he was doughboy infantryman, who foot-slogged along these routes, or driver of the motor service, knew and utilized all these systems and became accustomed to them. Is it a mistake to suppose he will favor and work for such roads here despite the fact that he is again a proud civilian who probably wants to forget his army days?

Despite the drain on French man-

power, attempts were made to keep in repair all of the highways of the country. Near the front, it was, of course a necessity. But, likewise, it was done as much as possible, in the southern sections and it was seldom that any road, except those upon which traffic has been unusually continuous and heavy, could be found in disrepair. The story is old of the way in which Verdun was saved by the never-ending lines of motor trucks and cars along the "Sacred Way" leading into that beleaguered city as the only open route of communication to supply the brave-hearted defending armies. But thousands upon thousands of Americans

have driven the stretches of that road, kept constantly in repair, in similarly supplying the forces that won the Meuse-Argonne engagements, the greatest American battlefield.

LET THEM TELL ABOUT THAT ROAD IN BOOSTING THE FALL BOND ISSUES!

In the interest of truth, it must be admitted, that many sections of road through the Meuse-Argonne section became almost impassable and, as the

armistice came, the roadways were getting into such condition that extreme difficulty was experienced in driving even the shortest distance. But several factors brought about that result. Even the finest road will not stand up under everything.

Guide Signs Were Everywhere

Many of these sections were through the old No Man's Land and the invaded district that for more than four years had received its tor-rents of high explosive, shrapnel and bombs. Then, before each advance, would come the addition of the American barrages, followed, of course, as the lines pushed on, by the returning fire of the enemy. Roads thus would be found with great shell holes torn into them. Hasty repairs were made by the engineers and laborers and then would come the everlasting pound, pound of the heavy supply trucks, the guns and the tanks day and night, under every condition of rain and inclement weather. Despite everything that could be done, many of these roads went to pieces-but how much sooner would they have become impassable without the firm foundations and laudable construction of the old French road engineer?

The returning American knows all these points. He can utilize them in working for the construction of such roads in this country and will do so, if you will give him only half a chance.

Reference was made above to the sign and guide posts erected along the French roadways. These were numerous and were of both stone and steel. The former were placed at kilometer intervals along the road—a kilometer is roughly five-



eighths of a mile—and showed the distances each way to the nearest town, with usually the distance indicated to some larger city within ten, twenty or thirty miles. Any driver, even the most stupid, had little difficulty in following these guides from place to place.

Cross roads also were marked, with steel signs set upon posts. Each direction was marked, with distances, to three or four places.

Then similar steel signs were placed upon the first house in each village, showing the name of the town as well as distances to various other towns or cities.

In some instances, large guides were painted on walls or houses showing the directions of important routes.

Dangerous curves and turnings likewise were posted, with warnings, thus simplifying the problem of safe driving.

How About Your County?

The signs spoken of above were nearly all of peace time construction, placed by the road departments, with other signs erected by touring and motor clubs. Other directions also were posted by military authorities in sections in which large troop movements were ordered.

Much of the Luccess of the American army was the result of these road improvements. A similar improvement—or any improvement—in this country means increased touring and increased use of trucks for long and short freight hauling. The leaven to force the construction of such roads is scattered throughout the cities and the country districts of the United States. The proper impetus will mean its profitable utilization.

The soldiers can tell the story!

They know!

They are ready to tell the public in every county!

What about your county?



Having a

Showdown in the Showroom

There's No Low Visibility and Nothing Up a Sleeve in the Sweeten Merchandising System—Each Salesman Sees the Other Fellow's Hand and It Makes 'Em Play the Game

This plan has these advantages:

1—It is an incentive to work, as it keeps the salesman's record constantly in front of him and his associates.

2—It stimulates rivalry.

3—It keeps the sales manager informed.

4—It is used as a comparison for monthly business transacted.

By K. H. LANSING

methods, including RIGINAL novel means of stimulating salesmanship, characterize the merchandising system of the Sweeten Automobile Co., Philadelphia. For instance, James Sweeten, jr., head of the organization, which is distributer for Franklin cars, has collaborated with John E. Adams, manager of the sales office, in establishing a "Monthly Selling Record of Points," (Fig. 1.) which is a visible chronicle of the achievements-or lack of them-of the sales force for each month.

A blackboard on the wall of the office of the director of sales, Davis F. Garber, is used to record the number of "points" made in sales by each member of the selling staff for the four-week period. A "point" means

every \$25 unit in a sale, there being, of course, four "points" in every \$100. These "points" are credited on the net amount of the sale. To find the number of "points" in a sale of \$3,666.02, for instance, that sum would be divided by 25.

If a salesman makes more than his quota of points, which is on a basis of 320 a month, he receives an extra commission on the amount of sales.

In other words, he is expected to sell at least \$8,000 in cars a month, and if he exceeds this amount, he is rewarded to stimulate him to keep up the good work.

Each man's sales, then, as at present arranged, with the staff at its size for the season, should be for each month 14.3 per cent. of the budget of business. But when a salesman's sales are one-

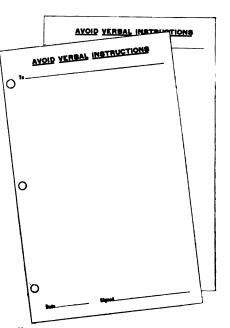


Fig. 2—This is what the Sweeten salesmen call an "A. V. I."—
Avoid Verbal Instructions

third in excess of his quota, or when he makes more than 19.1 per cent of the total amount of business written for the month, he receives an extra 10 per cent commission, his contract is called a "star" one and a record is made of his points in red on the blackboard.

Those "A. V. I." Check-Ups

Realizing that there are possibilities for misunderstandings when instructions regarding prospects are given only verbally by the sales office to the sales force, the company uses what are known to the staff as "A. V. I.'s." These are special forms (Fig. 2) for written instructions, which serve as a check-up in case of a lapse of memory on the part of a salesman who has been told to do some specific thing regarding a prospect.

The initials "A. V. I." stand for "Avoid Verbal Instructions," the very significant caption which heads the form.

The form, which is in duplicate, a white and a light blue sheet, shows, of course, to whom the instructions are issued, with blanks for filling in date and signature at the bottom. The sales office retains the blue original in a loose-leaf book and the duplicate goes to the member of the selling staff to be instructed.

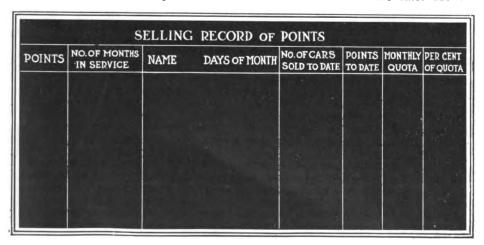


Fig. 1—Blackboard in the salesroom of the Sweeten Automobile Co., Philadelphia, distributer of Franklin cars, showing "points" made in sales by each salesman for the month

"I forgot," or "you never said anything to me about it," won't go, then.

This form is found especially useful, for instance, in a case where a salesman is to be instructed to "keep off" a prospect after his right to consider that prospect as his has elapsed through failure to interview him within five days after he has "taken him on."

Caring for a "Stop-In"

It is emphasized to the Sweeten salesman that when a showroom prospect arrives, one of the first things to ascertain is whether the prospect ever has been interviewed by any of the salesmen, or by more than one of the salesmen.

This is quite necessary, as decision regarding payment of the commission is made on the basis of the most recent work with a prospect, other conditions being equal.

If a floor salesman makes no progress in 5 days after having been assigned to a prospect, that is, if he reports no interview in that period, he receives an "A. V. I." with instructions to "keep off" the prospect, who then becomes the property of the next salesman in line.

But other things happen in this connection, rounding out the office system.

To every Sweeten salesman is presented a Daily Diary. In this small book of loose-leaf type, he enters daily his data concerning prospects, for instance, name and address, also telephone number of prospect; whether a "stop-in" or "floor" prospect, one found on a

TYPE ON HAND IN TRANSIT ADPROXIMATE USED DELIVERY

SOLD FOR SALE DELIVERY READY IN PROCESS

Fig. 5—Another blackboard used by the Sweeten Automobile Co. to bulletin Franklin cars available for delivery. It is on the wall of the department for the salesoffice manager

"lead," on a call, or whether a telephone engagement.

MOTOR WORLD

Particulars from the diary are entered in the Show Room Prospect Book when such entries have been made from a showroom interview, the salesmen getting prospects in rotation. The book contains name and address of prospect, with salesman's name at top of column. The names of other salesmen follow in order. Each salesman has, in addition, a special book-number.

The Show Room Prospect Slip (Fig. 3), a duplicate form, having white and

pink sheets respectively, for the salesman and the loose-leaf record book in which it is kept, is the next step in the system. If a "stop-in" should inquire for a certain salesman who does not happen to be the one who, in the course of rotation, should get the next prospect, of course the particular member of the force for whom inquiry is thus made, gets the prospect.

The Show Room Prospect Slip has entries for just such contingencies and in addition to name and address of prospect, the following items on the form are to be filled in:

"Stop-In"; "Called on Phone"; "Name Given by"; "Is Interested in"; and "Remarks." Then, at the bottom comes the spaces mentioned—"Asked for," "Referred to," "Entered," "Date," and by whom entered.

The pink duplicate is perforated on one side for the loose-leaf book, but the white original for the salesman has no perforation.

When entry is made in the Show Room Prospect Book, the Salesman's Prospect Card (Fig. 4) is made out and placed in a Visible Index used in a special way by the company. Since reading is done from left to right and it is more

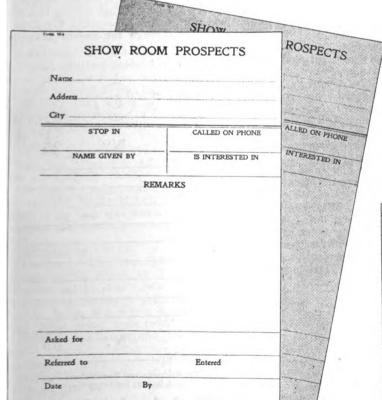


Fig. 3—Show room prospect slip, in use by the Sweeten Automobile Co., Philadelphia. The salesman gets the white original and the office keeps the pink duplicate in a loose-leaf book

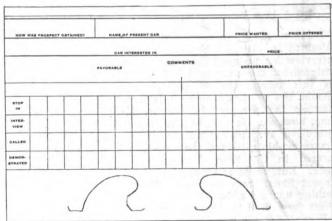


Fig. 4—Salesman's prospect card, filed in a visible index by the Sweeten Automobile Co., Philadelphia, as part of its merchandising system

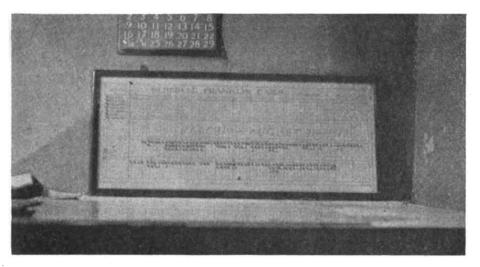


Fig. 6—Schedule of shipment of Franklin cars from the factory, operated with colored pins, to show factory movements and types of cars. This chart hangs over the desk of the manager of the sales office

natural to most persons to proceed in that manner with anything to be handled, the "Live Prospects" are listed on the left hand of the Visible Index and the "Dead Prospects," so-called, on the right.

Gives All the Data

The Prospect Card for filing in the Visible Index is a standard size, 6 x 4, with a patent double notch at the bottom for convenience in slipping into its metal receptacle in the Index and fastening. There are spaces on this card for the following entries:

"How Was Prospect Obtained?"
"Name of Present Car"; "Price Wanted"; "Price Offered"; "Car Interested in"; "Price"; "Comments" (with special spaces for "Favorable" and "Unfavorable"); and 18 little squares laid out horizontally for each of the following subdivisions: "Stop-In," "Interview," "Called" and "Demonstrated."

Take the case of filling out for the "Stop-In," for instance. The date is filled in from the Show Room Prospect Book, with the salesman's initials beneath. The other entries in the like subdivisions are treated in the same manner.

Five Days for Sale

It has already been mentioned that the salesman is allowed 5 days in which to interview his prospect from the time of assignment, the penalty for failure to do this being loss of the prospect. Should the salesman succeed in interviewing the prospect in the specified time, however, his initials, with date of interview, are entered in the proper square on his card and the date also is entered in the Show Room Prospect Book. Entry also is made on the Daily Report Sheet from the card. There is nothing unusual about the Daily Report Sheet form used by the company.

Record that the salesman has succeeded in interviewing the prospect in the five-day period, entitles the salesman to consider that prospect as his property for thirty days. But to keep a prospect

"alive," a salesman must interview him every 30 days, until the prospect buys another car, or otherwise unequivocally signifies that he is no longer a prospect. When such a contingency occurs, the prospect card is marked "Dead," removed from the "live," or left-hand file of the Visible Index and placed in the right-hand file.

Here the "dead" prospect lies buried for 6 months. But should he happen to be "resurrected" through returning and buying a Franklin car after he has been deemed "dead," the prospect then becomes the property of that salesman whose initials appeared last on the card.

Blackboards Popular Here

The Sweeten Automobile Co. also makes use of a blackboard (Fig. 5) to bulletin Franklin cars available for delivery. Mr. Sweeten and Mr. Adams had so often seen cases in other concerns where no one seemed to have the proper information in this regard at hand, to be checked up at a moment's notice, that they determined the company never should be so handicapped.

Accordingly, there now is on the wall of the salesoffice manager's department, at the immediate right of his desk, a blackboard headed, "Franklin Cars Available for Delivery," and having spaces for the following types of cars: Touring. two-seated roadster, four-seated roadster, brougham, sedan, limousine, special limousine, town and cabriolet.

HERE'S A TAG

When a car is taken to the Birmingham Auto Laundry, Birmingham, Ala., one of these cards is filled out and tied to the car. The card tells the workman what is to be done and space is provided for setting down the time required for the job. Best of all, the lower half of the tag is a claim check, which helps make sure that the man who brings the car in is the same man who takes it out.

Then there are these subdivisions to be filled in: "On hand for Sale"; "In Transit," with the notations "Sold" and "For Sale" thereunder; "Approximate Delivery" and "Used" with the subordinate notations "Ready" and "In Process"

Chart With Colored Pins

Another interesting visible record (Fig. 6) in use by the Sweeten company is that whereby it keeps tab on the weekly shipment of cars from the factory. This schedule is made up for six months in advance, a chart divided into squares each representing a week, and operated by means of colored pins, being employed. Each square is subdivided to show movement of factory product by placing the pins.

The factory keeps the Sweeten company as distributer informed of its movements by letter and as soon as shipments are made as per schedule, the corresponding pins are removed.

The key to the chart is that each colored pin, or pin having a large colored glass top, signifies a distinct type of car. These designations are as follows:

Touring car, green pin; four-seated roadster, brown; two-seated roadster, yellow; cabriolet, purple; brougham, blue; sedan, red, and limousine, pink.

Colored circles around pins also have significance. For instance, a red-ringed pin of any color means "sold"; a pink ring signifies that a car is of some special color, and a black ring denotes that the car's upholstery is leather.

Thus, in the simplest way, and always in plain sight, the Sweeten company's records are kept. Time-saving and general efficiency, it is asserted, are greatly promoted through the means thus employed.

	0			
Time	Nº	35		
Wash				
Polish				
Grease				
Motor				
				
	N'	35		
Serial No				
We Recharge and Repair Batteries A Battery for Every Car				
Birmingham Auto Laundry				
Columbia Storage Battery Service Station				
1st Ave. & 19th St.				



5 Things Your Boss Looks At In You

1—Your organization spirit

- 2-Your get-results habit
- 3—Your ability to originate
- 4—Your accuracy.
- 5—Your atmosphere

By RAY W. SHERMAN

VOUNG Roper, bridegroom, and also rather new as a salesman in the establishment of C. J. Reilly, Inc., was one of the busiest young men in the Reilly organization. He made a great many moves in the course of a day—and often at the close of the day—which had been anything but perfect—he would heave a 6 p. m. sigh and go home. At home he was just getting to the point where he was willing to admit that the cooking was not all perfect, and sometimes the cooking really was to blame.

Sometimes he wondered if Tommy Trumbull, Reilly's sales manager, were not an erratic nut, for, try as he would, he never seemed to get by with Tommy in the way that would be necessary if the Roper family were to establish itself in a whole house instead of four-and-a-bath

"I'll tell you what you do!" asserted Tommy one afternoon, after Roper had been particularly vexatious in the eyes of the Sennett sales manager "You go and ask Mr. Reilly if he'll tell you five things to do that will make you a better salesman and worth more to yourself and to us."

"But does he-"

"Yes, he DOES!" anticipated Tommy. "He knows all about all the people in the organization. And he's more interested in the people in the organization than he is in the goods he sells. He won't think more than twice before he answers if you'll ask him what I told you."

Wherefore Young Roper trotted promptly into the office of the boss—of whom no one in the organization was afraid.

"Mr. Reilly—what five things can I do to make myself a better salesman so you'll want to pay me more money?"
"Well! Well!" And Reilly smiled.

"Well! Well!" And Reilly smiled. The mysteries of youth and the problems of life were two things that kept him serene and looking always less than his better than two score of years.

"Well! Well! Five

things! Let's see—five things—suppose we take them one at a time and suppose we call them five things the boss looks at in men—and women. Let's call them qualities—anything you will—but five things the boss looks at. Will that suit?"

"Fine!" assented Roper.

"All right! Let's start first with the man's organization spirit. That's as good a name as I can think of for it—"

"Haven't I got that?"

"Have you?"

"Haven't I?"

"Maybe—but you wanted me to tell you five things, didn't you?"

"Yes." And Roper subsided into a listening state.

"In the first place the boss is interested in what he can make out of his business. Get that firmly fixed in your mind.

"In the second place, what he can make out of his business depends upon the success with which his organization operates. Get that also firmly fixed in your mind.

"In the third place, you are simply one part of the organization and your success depends upon the manner in which you contribute to the success of the organization as a whole. Your own individual performances are a very minor part of the whole scheme of things.

"For instance, there are times in baseball when a man must go to bat and sacrifice himself. He might have a fine chance to bat out a long one and get applause from the grandstand, but his effort would be wasted because he would not be operating for the success of the organization. He would be a big individual success, but almost worthless as an organization man.

"One day, so Tommy tells me, there

was need for somebody to beat it out on the Hill Valley road and help a new Sennett owner put on a tire. He didn't know how to do it. At that particular moment action meant a great deal to the Reilly company. There was no one available except a salesman, and Tommy asked the salesman to go. The salesman said he was not paid to change tires; he was a salesman. So Tommy asked him to mind the office while Tommy went out and changed the tire himself, all of which took not more than twenty-five minutes. But it meant a lot to our company. The salesman had his eye too much on himself and his own rights and not enough on the success of the organi-

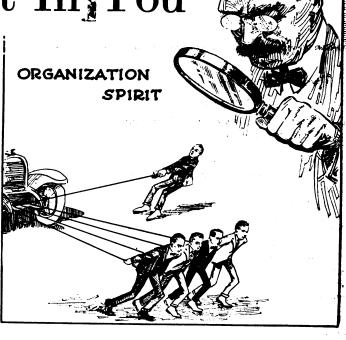
zation."

Roper's face was just a trifle pink.
"But—"

"Of course," Reilly continued, "the salesman had a right to refuse to do those things, but, Roper, one of the reasons so many people don't get along in the world is that they have too darned many RIGHTS. If they would forget themselves and their rights and come to a realization of the fact that they are only workers for organization success and that they can succeed in the organization only as they help the organization succeed.

"Fights between departments result in victories for one department, petty squabbles result in men getting their RIGHTS, but they're all hurtful to the welfare of the organization. To play the game you must put the organization ahead of yourself—then maybe some day you'll be put at the head of the organization. That's all."

"And the other four things?"
"To-morrow," smiled Reilly. "One a
day is a lot."





SCIENTIFIC CONSTRUCTION

GARAGES

SHOW ROOMS

REPAIRSHOPS

Two-Story Showroom with Basement

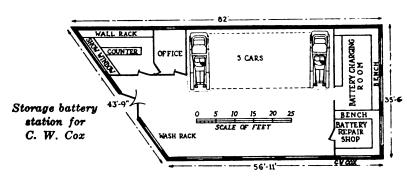
Character of Business—Showroom and service station.

Details wanted—Two-story building, 40 x 109 ft., with basement. Wanted showroom and repair shop, with storage space on upper floor. Elevator in rear. Building has alley entrance.

Name—Frisbie-McCormick Co., Norwich, Conn.

Answer—The size of the building which you have selected as a branch showroom and service station is rather small, but we have tried to take advantage of every bit of space.

We are unable to give you my idea as to what use you could make of the basement. You certainly could not use it as a repair shop, because the lighting fa-



cilities would not only be poor but the dampness which is in evidence in almost every basement, would tend to rust the car, parts and tools and not only that but workmen as a rule dislike the idea of working in a place where they have to working in a place where they have to artificial light all the time. A man's health would certainly be endangered were he to work year in and year out in a basement eight hours a day. A

basement could hardly be used for storage on account of the bad effect of the dampness on varnish and on netal parts.

The way the elevator is arranged in the corner makes it necessary to leave a considerable open space in the middle of the shop to allow the cars to get on and off the elevator. If it were not for this, there would be room to store two or three more cars along the other side of the floor. As it is, we have placed six cars along one wall and this seems to be the maximum number of cars that could be placed in this space and still allow the cars to be moved around.

The bench has been placed against the wall and no large door has been allowed for in the showroom as the show car can be run into the service station and through a sliding door. On the side of the showroom next to the stairway, we have placed wall racks and a showcase for the sale of accessories, parts, tires, etc.

All cars should enter and leave through the rear entrance which should probably have two doors, one for cars to go in and the other for cars to go out. There would hardly be room for more than one car in the showroom and still leave room for people to walk around.

STORES

STORES

STORES

SHOWROOM

SHOWROOM

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Showroom and service station for Frisbie-McCormick Co.

A One-Story Battery Station on Odd Sized Lot

Character of business—Storage battery and electric service equipment huilding

Details wanted—one-story building with street frontage of 43 ft. 9 in., with rear width of 35 ft. 6 in. and sides of 82 ft. and 57 ft. 11 in. Want service floor, office and stock room and shop.

Name—C. W. Cox Electric Station, Perry, Ia.

Answer—Without knowing the quantity of work which you expect to handle, it is impossible to get the division of the



different departments exactly as we would like. However, we have done the best we could and we have placed the battery charging room and the battery repairshop at the back of the building and the office and store at the fiont on the main thoroughfare.

By all means have the entrance to the service station on the main street. It is not necessary to have it in the middle as we have shown it; it might very well be placed at the corner where the short side joins the front. By having the offices up front, you can have a store for the sale of various battery accessories, such as hydrometers, distilled water, and any other electrical appliances which you find have a ready sale. The show window in the main street is one of the assets of the place and should not be overlooked.

The way we have laid out the plan there will be room for storage of five cars, but hardly more than this, unless one of the cars is moved out of the road to make room for another. If there is much battery overhauling, it is well to have the battery shop where the overhauling is done, separated from the regular battery-charging room, as we have indicated.

The battery charging room should be well ventilated so that the hydrogen gas and vapors from the acids will be conducted off with the least possible injury to the workmen in the place and to the finish of cars which may be stored in the shop for a greater or less lapse of time.

Of course, if you decide to buy the adjoining property and enlarge the shop, you will be able to take care of a good many more cars.

It has been found generally that when a man wants to have his battery fixed up he will leave the car there because otherwise he will have no battery to run on unless you have a stock of batteries to loan to customers. This might prove a profitable venture as you could make a small charge to cover the rental of the battery and this should, of course, be made to pay a profit. This is no new thing and has been done with quite a good deal of success by many battery stations.

Sells an Idea with Each Tractor

66C ELLING tractors is harder work D than selling motor cars, because in selling the former you must sell an idear as well as sell the tractor," says E. H. Wagner, Wagner Motor Co., Ford and Fordson dealer at Mason City, Iowa. "In our selling campaign we emphasize the importance of every business undertaking having up-to-date equipment. We treat farming as a business and try to show the farmer how it is to his advantage to equip his farm properly. To do this, our salesmen must know all there is to know about each of the things we try to sell and be able to present the advantages of the combination convincingly.

In presenting the tractor to the farmer, stress is laid upon the better quality of the work that can be done with a tractor and power equipment than can be done with horses and horse-drawn equipment.

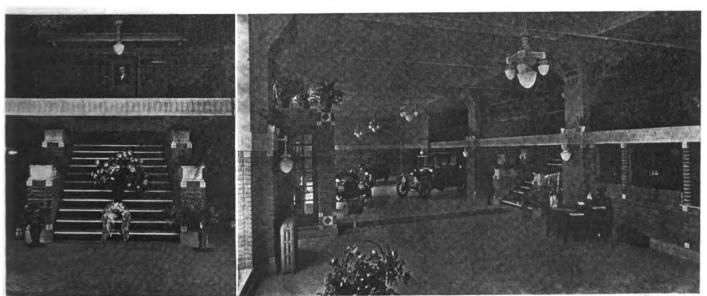
Wagner has sales agencies at Mason City and Clear Lake, and so far this season has sold more than thirty tractors.



CONTRACTOR OF THE PROPERTY OF

Our Trades Pretty Homes

The building of the Overland-Hanson Co. in Waterloo, Iowa. Study carefully the interior and exterior architecture and when you build a new home maybe you can use some of these ideas



A Department of

BETTER

No. 111

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the seventh of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car.

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

IF the shop is a small one, it will probably be found more profitable to install the new bands already lined as they come from the factory or branch, but where a large number of jobs are handled, it will be found profitable to save such bands as are still in good condition as far as the metal parts are concerned and reline them when work in some department of the shop slacks up enough to spare one or two men to do a bunch of the work at once.

1-Rip off the old lining and extract the old rivets.

2—Straighten up the metal parts if they are bent or if the strap is kinked or twisted.

What Has Been Covered

System in handling Ford service Labor operations covering repair work

Segregation of work Arrangement of departments Disposition of old material

I-The power plant.

I—The power plant.

1—Removing the engine from the car.

2—Taking down the engine.

3—Testing and straightening the crankshaft.

4—Rebabbitting the cylinder block.

5—Reboring the cylinders.

6—Fitting new, pistons.

7—Fitting the piston pin.

8—Aligning the connecting rod.

9—Fitting the rings to the pistons.

10—Burning in the bearings.

11—Testing and overhauling the magneto.

neto. 12—Overhauling the transmission.

This Week

Minor Engine Repairs

3-The size of the brake lining is 23½ x 1½ x 5/32 in. Do not use brake lining with wire insertion or metal of any kind as this will wear off and eventually short circuit the magneto.

4—An old transmission brake drum can be held in the vise by its shaft or can be mounted permanently on the bench with some pipe fittings after the manner shown in Fig. 66.

5-The band with the lining in place is placed around the drum and the rivets driven through the holes. Brass rivets only must be used and these are 9/64 in. diameter and either ½ or 9/16 in. long. When the rivets are driven through the band and the lining they will clinch themselves on the drum and an extra blow will compress the lining enough so that the ends of the rivets will countersink themselves a short distance into the lining.

Assembling the Bands

6-The bands should now be given a final straightening out around the drum so that they will be as round as possible and fit the drum without dragging at any one point.

The bands can be assembled to the

drums with much more facility if this is done before the crankcase is assembled to the engine.

1-Slip the bands on the drums with the lugs upward.

2-If the bands are given a slight twist inward before they are put on, there will be enough friction to hold them in this position until the crankcase and transmission cover assembly is put on.

3-In assembling the bands with the crankcase on, the bands must be turned with the lugs downward and slipped over ahead of the forward drum.

4-Assembly will be facilitated if the flywheel is turned so that one set of

Future Installments

The carbureter

Assembly of engine and transmis-

The ignition system

Testing and running-in the engine

The radiator

Rear assembly

Front assembly

Chassis frame and dash

Body, top and windshield

The steering gear

triple gears is about 10 deg. to the right of top center.

5—The band is then pushed one way or the other until it has gone over all the gears.

6—The first band to be put on is slipped to the rear drum, the second to the middle, and the third to the front.

7—The bands must be turned with the lugs uppermost while they are over the triple gears as this is the only place where there is enough clearance to allow the lugs to be turned around.

8—A U-shaped piece made out of 5/16 or %-in. drill rod is put over the lugs when they are all in an upright position. This will hold the lugs in so that the pedal shafts will rest in the notches when the transmission cover is put on. It will be impossible in this case to contract the bands so that they will stick to the drums and stand up themselves as the slipping on over the triple gears will have bent them outward. See Fig. 67. In lieu of the U-shaped rod, a piece of heavy cord may be used but this is not as quick or as handy.

9—When putting the transmission cover on, the clutch release ring must be placed in the rear groove of the clutch shaft.

Reseating Valves

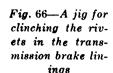
When the valve seats are worn to a point where the seat is too wide, a remedy exists in the way of boring the port out larger, reaming the seat, and if there is wear in the guide; reaming the guide for oversize valve stems.

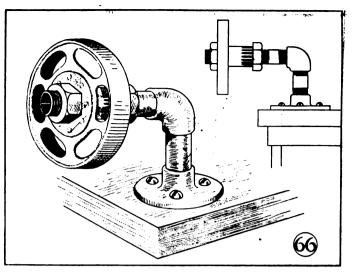
1—A tool for doing all three of these operations is shown in Fig. 68.

2—Place the enlarging reamer with the stem in the valve guide.

3—Put the clamp on over the reamer and set the bolts down tight.

4—Turn the reamer with a wrench until it goes all the way down and enlarges the port the entire distance.





5-Replace the enlarging reamer with the seating reamer.

6—Turn the seating reamer until a narrow even seat is formed.

7—Even light pressure is required on this reamer to prevent chattering and making an uneven seat.

8—Replace the reseating reamer with the guide reamer and run this all the way through, enlarging the guide to take the oversize valve stems.

9—The jig or clamp remains bolted to the cylinder head during all these operations, thus insuring the truth of the three operations. Two bolts are furnished which fit into the cylinder head bolt holes and the jig is swung from one port to another by loosening only one bolt.

10—A straight reseating reamer for recutting the seat only is shown in Fig. 69. No clamp is necessary with this and the stem is simply inserted in the valve stem guide and the reamer turned until a good clean seat is obtained.

Replacing Camshaft Bushings

1—When the camshaft bushings are worn, they should be replaced. They are removed from the casting, two of them being split and the other one being a one-piece bronze bushing. Clips hold the halves of the split bushings together.

2—A line reamer for the camshaft bearing is shown in Fig. 70. It is provided with two guide surfaces which bear in the casting so that the reamer part of the tool will ream the hole in the small bushing exactly in line with the other holes.

3—Before the camshaft is replaced it should be tested with the same testing and straightening press that was used in the case of testing and straightening the camshaft. This was shown in a previous installment in Fig. 19 and 19A. Another method of testing is shown in Fig. 71.

4-If the crankshaft bearings have

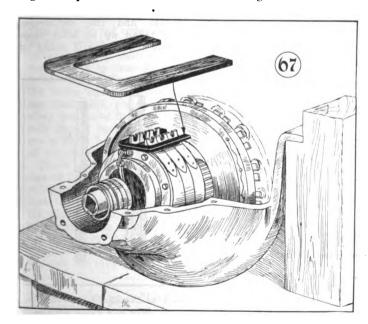


Fig. 67—The lugs of the bands are held together with a U-shaped rod so that the pedal shafts will rest in the notches

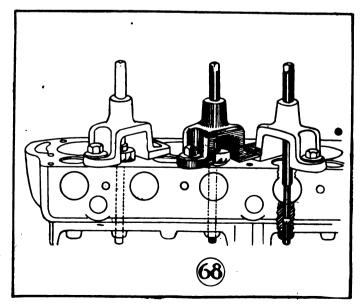
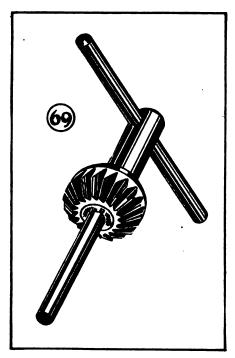


Fig. 68—A tool for renewing the valve ports, the left showing the port enlarging tool, the center the rescating tool and the right the guide reamer







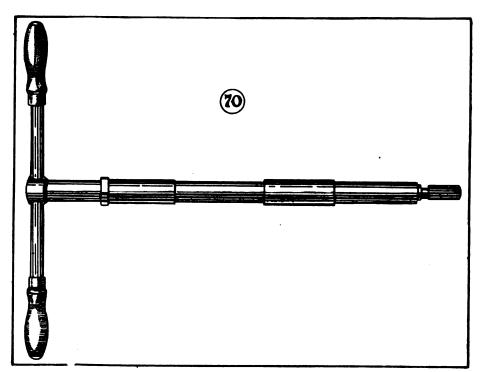


Fig. 70-Line reamer for camshaft bearing

been properly babbitted and burned in, the gears of the camshaft should mesh smoothly and nicely with the crankshaft gear without grind and without any appreciable backlash.

5—In timing the gears, the punch marks on the two gears should be put together and no further worry need be had over the timing.

6—In case the punch marks have been removed by the use of a new gear or from other causes, the timing should be made such that the valves and pistons have the following relation:

Exhaust valve opens when piston comes within 5/16 in. of bottom stroke, the distance from the top of the cylinder casting to the top of the cylinder head being 3% in. Exhaust valve closes on top dead center, the piston being 5/16 in. above the cylinder casting.

Intake valve opens 1/16 in. after top dead center.

Intake valve closes 9/16 in. after bottom dead center, the distance from the top of the cylinder casting to the top of the piston being 3½ in.
7—In checking this valve timing, the

clearance between the valve stem and the cam follower is supposed to be between 1/32 and 1/64 in.

The starting crank bushing should be replaced if it is worn so that there is considerable lost motion between the starting crank and the bushing. The bushing is simply pressed out in a press and a new one inserted.

Brazing Crankcase Arms

1—Many large shops make a practice of reriveting and rebrazing the crankcase arms on all overhaul jobs which are turned out whether the operation is called for or not on the card. The advantage is that the job cannot be brought back by the owner to correct this fault later. It is a simple enough job when the crankcase is disassembled from the engine, but to do the job over requires taking the engine out of the car and taking it partly down which is somewhat of an expense.

2—Either cut the old arms off with a chisel or melt the spelter with the torch.

3—Clean up the surface around the arm so that it is bright and free from grease and oil.

4—Rerivet new arms in place, heading the rivets up with a ball pein hammer. A piece of shafting with a countersunk place in the top makes an excellent anvil.

5—Heat the vicinity of the arms up with the torch, applying borax and spelter when the proper heat is reached and use enough spelter to make a good strong job.

6—After brazing the arms, the crankcase should be tested to see if the heat has had any effect in the alignment. If it has, the crankcase should be straightened before assembly, as it will be hard to get the bolts in place otherwise.

7—Aside from any accidents or broken parts, the overhauling of all parts of the engine and transmission has now been completed with the exception of the ignition system and the carbureter, which will be taken up in later chapters. Otherwise the engine is ready for assembly.

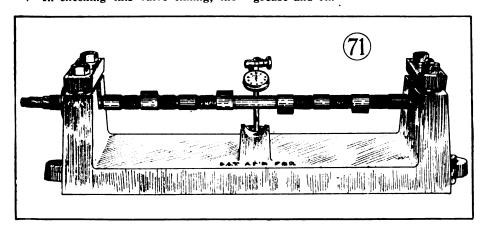


Fig. 71-A method of testing the straightness of the camshaft

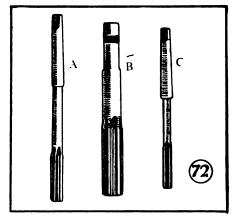


Fig. 72—A is the 29/64-in. reamer to ream the push rod holes 1/64 in. oversize; B is the camshaft bearing bushing reamer, and C is the 21/64-in. reamer for reaming the valve stem guides 1/16 in. oversize

SHOOTING TROUBLES

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Reducing Piston Weight by Drilling

Editor Motor World: Have seen some pistons which were made lighter by drilling them full of holes, and would like to know if there is any disadvantage in this such as excess of oil, etc. If the method is practicable, please advise how the holes should be spaced and arranged.—A. H. Todd & Son Gárage and Machine Shop, Fleischmanns, N. Y.

Answer.-Holes are drilled in pistons to decrease the weight. There is practically no advantage in doing this, provided the pistons are properly balanced and the car is intended for ordinary speeds. However, if the car is intended for high-speed work such as racing, there is a distinct advantage in lightening the reciprocating parts to lessen the pressure of the piston against the wall of the cylinder, which increases very rapidly as the speed increases owing to the angularity of the shaft and the very rapid starting and stopping of the piston at the top and bottom of the stroke. The exact arrangement, size and number of holes would be more or less experimental as the design of the particular piston would have much to do with it. If the piston is of conventional design and is not lighter than ordinary, possibly 25 per cent of the area below the piston bosses might be drilled out without weakening the piston skirt. This is a maximum figure, however, and it would be better to start with 15 or 20 per cent as a trial. The holes should be spaced around so that they do not come one over the other, as this would cause uneven wear on the cylinder and a small ridge of the piston would have to take all the wear at this point. Weigh the pistons carefully, space the holes equally around the skirt and see that each piston weighs the same when you have finished. The connecting rods should be balanced too, and if any are a little heavier they can be ground off on an emery wheel.

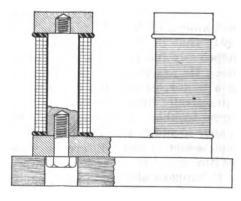
There should be no trouble with excess of lubrication if the holes are drilled straight and true. In fact, it might be that the reverse would be true, because the edges of the holes would be bound to gather up some of the oil on the cylinder walls as they moved up and down, and this would be returned to the crankcase through the inside of the piston.—Editor.

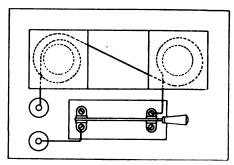
A Magnet Recharger

Editor Motor World: I would like to have a magneto charger. I have one that I use a 6-volt storage battery. I would like to have one like the factories use. How can I get it? I have so many mag-

netos to charge. Can I take the 110-volt current and use it? —Click Battery Co., Marion, Ohio.

Answer—A recharger in the form of an electro magnet, to which the magnet can be applied is shown in the illustration. The limbs of the magnet are made of soft steel 1 in. in diameter and 3 in. long. They are secured to a base measuring 5¼ x 1½ x % in. and are provided with pole pieces which measure 1¼ x 1¾ x % in. It is necessary that all contacting surfaces should be machined absolutely flat and square so that there will be a good metallic contact over the entire sur-





The upper view is a side elevation of the magnet recharger and the lower view shows the connections

face. Before the wire is wound on the magnet the wires must be insulated. A sort of spool is formed on them by means of two fiber rings and it is a good idea to turn the magnet cores down to a diameter of 1% inches and a thin collar allowed to stand on one end to support the fiber ring, the other ring being supported by the pole piece. The core between the fibre rings is then wrapped with several layers of muslin which is given a coat of shellac and allowed to dry thoroughly. For a 110-volt circuit the winding should consist of eight layers of No. 22 double cotton covered magnet wire. The ends or leads of the wire are taped and the outside of the coils shellacked to make their exposed cotton insulation proof against rough handling. The whole outfit can be mounted on a wooden base which also carries a switch and binding post.

The two coils are connected together so that the current flows through one in a right-handed direction and the other in a left-handed direction, looking at both from the same direction. Connect one free end of the coil to one terminal of the switch and the other to the bottom of the binding post on the base. The current source is connected to the other terminal at the switch and to the binding post.

It is very necessary in recharging the magnets that they be applied to the recharger with unlike poles together, that is, the north pole of the magnet to the south pole of the recharger, and the south pole of the magnet to the north pole of the recharger. Since like poles repel and unlike poles attract each other the magnet finds its own position if freely held a short distance above the poles while the current is switched on.

To recharge the magnet, set the magnet on top of the charger and switch on the current, rocking the magnet back and forth on its pole edges a number of times and then lay it on its side with the poles away from you and extending just beyond the far edges of the poles of the recharger, then apply a soft iron keeper to the pole pieces, switch off the current and withdraw the magnet sideways from the recharger. The keeper should not be taken from the magnet until the magnets are in place on the poles of the magneto.

With windings such as these a very great heating effect will be obtained and the current should not be left on for more than a few minutes at a time.

That Ford Repair Article

Editor Motor World: I have been reading a number of automobile journals and have not found any that has given me more information in this respect than Motor World. Take, for instance, your issue of June 4, in which you have an article as to Repair on Fords. I am frank to say that this issue alone is worth as much to me as the annual subscription price.—Carl Miller, Waterloo, Iowa.

Reliable Tractor Incorporates

PORTSMOUTH, OHIO, July 1—The Reliable Tractor & Engine Co. has been organized with a capital of \$2,000,000 to manufacture tractors and gasoline engines. The incorporators are C. Heer, F. E. Adams. M. Heer, Fred N. Tynes, and George W. Platt.

Editorial Observation

Pay Those Who Deserve It

NE thing which stands in the way of the tractor dealer getting a bigger discount on tractors is the cost of service which the manufacturer thinks he has to supervise or render. Some of the manufacturers persistently refuse to see that this cost might be reduced materially by placing the agency for their machines in the hands of men who are themselves competent to render all the service necessary and thus reduce the overhead cost of service the factory assumes.

The sales manager of one of the best known of the old line tractor companies said recently that 80 per cent of the company's dealers were hopelessly incompetent in the matter of giving service. He asserted that they did not know how to time a motor, grind a valve or fix a magneto and were practically helpless in face of almost any kind of engine trouble. It happens that this particular sales manager is addicted to the theory that the retail implement dealer is the desirable tractor dealer and he favors him in preference to the motor car dealer always. It happens also that a very large percentage of the company's agents are implement men. The conclusion is obvious.

In speaking of the cost of service to the factory this sales manager says it is necessary for the company to maintain an elaborate service organization to supplement the incompetency of the agents and that this costs a lot of money. He admits that this might be overcome by giving the agency to men who are competent, and he admits also that the motor car dealer is such a man, but he justifies his disregard of the latter on the score that he is a failure when it comes to selling tractors.

Such an assumption is not borne out by the facts. The most efficient tractor sales organization in existence at the present time is exclusively automotive. Furthermore, the motor car dealer who has become a factor of importance anywhere in the tractor trade in most of the other sales organizations in the tractor industry are for the most part making good as salesmen. This assertion is made confidently and is based upon the results of a first-hand investigation in many parts of the country and might easily be fortified by the citation of hundreds of individual instances, were it worth while to do so. Even in the case of the sales manager quoted it has been impossible for him to confine himself exclusively to the implement field and he admits that he has some motor car dealers who are among the most successful on the company's books.

Furthermore, such motor car dealers are, for the most part, entirely independent of the factory in the

matter of giving service. Some of them who have been interviewed say they never have yet, and they do not expect to in the future, call upon the factory for assistance at any time. They express themselves as entirely competent to look after all the service that may be needed in their respective territories. To a marked degree this confidence is characteristic of the motor car dealers who have gone into the tractor business and who are making a success of it.

It must be evident that where this is so the cost of service to the factory is reduced to a minimum. It is equally evident that it is unfair to such dealers that they should be restricted in compensation because of the shortcomings of less competent dealers. It is not incumbent on the manufacturer to have a majority of his dealers incompetent and then make the competent suffer because of this. Competent dealers cost the company less in service overhead and the difference should come to them in the way of increased compensation for the work they do.

Some dealers are beginning to take this view of the situation and say they intend to make a stand on the principle of greater compensation for greater service another year. On any basis of fairness their contention is right. There have been instances in implement history where discrimination has been made on the score of service and it should startle no one if these instances should be repeated in the tractor business. At any rate, some of the competent dealers are going to try to get something and it is to be hoped they succeed. In this connection it is interesting to know that the discount on one tractor which is handled exclusively by motor car dealers will be increased this coming year. This is a recognition of motor car dealer competency which is gratifying.

Welcome Back!

ONCE upon a time in the dim and distant past there used to be at this particular time of year in Motor World from one to ten pages devoted to descriptions of new cars, just making their bow.

For months and months there have been none of the old-time mid-summer announcements of new models.

But they're coming back! Several have already appeared in Motor World and many more are scheduled for an early appearance. Some cars will be changed only from a merchandising standpoint, but they'll all be NEW!

There is no more welcome sign along the Road of Back-to-Business!



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Chamberlain Ready to Help Flat-Raters

Editor Motor World: With reference to the many letters I have sent you from dealers concerning the Flat Rate story published serially in Motor World, beginning with the issue of April 16, you note that a majority ask me for a copy of the Flat Rate Price List in use in our own organization in Denver, or else request that I send a complete set of blanks covering the system.

I have consistently turned down both requests, explaining that our local price list cannot possibly help another dealer, and especially one repairing other makes of cars. We work exclusively on Cadillac cars. I can understand that the form which the price list takes would be of use, but that is shown in the Motor World Supplement to the April 16th issue, as Form No. 20.

Use the Supplement

It is my sincere desire to give the benefit of my experience with the Flat Rate Plan to the trade, and I am more than glad to answer specific questions from time to time, if directed to me by any one who is following the system as published and runs into problems which are not clear to them from the story. On the other hand, it was considerable of a task to collect the forms, many of them not having been printed but simply made up on the typewriter at the time they were being used. I cannot possibly supply them all and see no reason for doing so after the wonderful manner in which Motor World gave them prominence.

I have been asked who gets the time saved on estimates as compared with the actual time put in by the workman and how I provide incentives for the workman to beat the estimated time if he does not get it.

In the story I went into this matter briefly, explaining that the objects must be carefully explained to the workmen and called attention to the value of monthly meetings for that purpose. Perhaps I did not go into it enough.

Hand in hand with the keeping of records by which I was enabled to establish a schedule of Flat Rate prices, I carried on a systematic campaign of education in my organization. I think that our seventy employees are no different from the same number in any other organization and, therefore, the manner in which they have responded proves out my theory along this line.

This theory is to the effect that the

workmen must be taken into your confidence. They must understand the meaning of overheads and be shown that your profit is not the difference between the amount per hour which they receive and the amount you collect. They must be taught the value of time so that they will not waste it. Your monthly statement should be read to them—covering their own department—in order that they

"Twenty-three" for Me

THE "Ford" is my companion, l shall not want (another)

It maketh me to lie about its patches;

It provoketh my soul.

It keepeth me continually in hot water.

Yea, tho I risk my life in the garage pits (I fear no worse evil) thou art ever with me;

Thy rods and thy rattle they discomfort me.

Often thou anointest my face with oil, thy radiator runneth over.

Surely if thou followest me all the days of my life

I shall be sent to the bug-house for ever.

(With abject apologies)
A. V. Storer, Secretary Citrus
Belt Auto Trades Association, Pomona, Cal.

P. S — Just ordinary Secretaries all have "Lizzies".

may see that you are not getting rich quick at their expense. In other words each man who works for you must be your confidant and friend and, as such, be willing to give you his best efforts.

It has been my plan to work on the supposition that I had to "come clean" with my men before I could expect them to "come clean" with me. Therefore I have consistently advanced wages before I was asked for an advance. I have granted vacations, half holidays on Saturdays, furnished overalls and washed them, bought dinners once a month at a leading hotel and otherwise tried to knit the organization together.

I tried the bonus plan and found it a miserable failure. The best efforts of every man in your organization is something you MUST have and yet it is something that money will not buy. The work cannot be hurried at the expense of good workmanship, which is very likely to happen under a direct bonus system.

If a man in any line works with his eye continually on the dollar he is not a man most to be desired. He must work for the pleasure of doing his work well, with perfect confidence in his organization, in which he sincerely believes and to which he is wholly loyal.

Our monthly meetings, then, have carried on this educational work. From an attendance of five or six mechanics they have grown to dinner-meetings from which not more than four or five out of the 70 members of the organization are ever absent. Outside speakers tell them the value of co-operation and of properly placed effort. There is music and good fellowship. They vote on matters of policy. They are loyal to the extent that extra money will not attract them from us. They threw a labor agitator out of the shop one day. They know we are on the square with them.

This is the incentive.

The other day at a dealer meeting a trade picnic was under discussion. The dealer next to me said to me: "to h—with these mechanics. I find the least you do for them the better you are off." To which sentiment I told him I would not agree in a thousand years. Our business has doubled in less than two years—his is about the same—except that he has changed cars twice.

I cannot help but add a word that is most recent. Yesterday I addressed the men in the shop for about ten minutes. announcing to them a flat raise of 10c per hour. Nothing had been asked of me. I felt that profits justified the raise and I gave it and, incidentally, it included all other departments, including every wage and salary in the organization. A slight increase in prices will be necessary and the value of the Flat Rate plan is that the increase will never be noticed by the customer. Thus I am able to volunteer wages which are in keeping with present costs of living, keep a satisfied organization and thus better serve the customer without any sales resistance in bringing it about .-Percy E. Chamberlain, Cadillac Motor Co. of Denver.

Tractors on Small Farms

Editor Motor World: Your issue of June 11th carries on page 45 an article headed: "HE PASSED UP \$200 OF TROUBLE."

I read this article over several times and have decided to write you. I do not know anything about what kind of tractor this dealer refers to, but can say we



C. W. Frey, dealer at Bloomington, Ill., believes in promoting motor tours through his state. This picture shows the unique manner in which he is using window space to further his idea. On the front window of his shop, he has had painted a road map of Illinois, showing all the more important centers and the best roads leading into them. Below the map there is a mileage chart showing distances from Bloomington. The display has attracted wide attention from passing motorists

have several owners operating tractors in this State on less than 80 acres of land and they are very much pleased with the way they perform.

I am sure the tractor would be a success on a farm of even less than 20 acres, providing it was the right tractor.

Tractors are being built now that can be handled a great deal more efficiently and more economically than horses can be, even in exceptionally small fields such as the ones referred to in the article.

I think an article of this kind hinders the tractor business in general, and it is apt to discourage some dealers who are almost sold on the power farming proposition.

If you would care to have me, I would be glad to furnish you with letters from owners operating tractors successfully on small farms.—T. W. Meiklejohn. Fond du Lac, Wis.

Just Heard of It!

Editor Motor World: I like Motor World. Wish I'd been a subscriber years ago. Just heard of it this year.—J. D. Arrowood, Ocee, Tex.

Our Experience with Tractors

Editor Motor World: Regarding tractors and tractor service in the South, the experience we have had with tractors to date is the wearing and trouble with motors, such as connecting rod bearings, main bearings, pistons, piston pins and also cylinder walls wearing fast and spark plugs requiring so much cleaning.

We have been working on this problem for some time. The future tractor business depends on the service the farmers are getting at present, and we are trying to keep back all of this trouble.

We make a specialty of machine work and repair work on tractors, trucks and automobiles. We feel that it is not only for the farmers' benefit, but that of the manufacturer, dealer and repairman that this subject be discussed.

Kerosene is unsatisfactory in every way on a tractor motor. We have found that in using gasoline only the motor gives better service all the time and don't require so much attention. The motor pulls better, uses less oil and requires less repair work and parts.

The many troubles we find in using kerosene are: First, the bearings give trouble; second, the pistons, piston pins and rings; third, and the main trouble, is that the owner becomes discouraged. This trouble we are speaking of is commonly thought to be caused from dust and grit in the air.

There's only about 50 per cent of the kerosene that is used in the combustion chamber, the other proportion causing carbon in large quantity, fouling spark plugs, passing the piston, cleaning away all lubrication, passing into crank case decreasing the lubrication of oil. Therefore, the trouble begins, and the only remedy we can find for all of the trouble is to use gasoline, and it is the cheapest in the long run.—Mitchell & Mitchell, Huntsville, Ala.

store it. Naturally I have been always interested in the automotive business. This country is only an agricultural one, where implements (mostly American brands) are used intensively. I advised the firm where I am employed to start the automotive business and now we have an automobile and tractor agency from one of the largest American concerns. My will is to deal as much as possible with America and I devote all my time in this way.

Competes in Spite of Difficulties

The only troubles are: (1) The high price for the dollar (now 6.25 to 6.50 francs, pre-war: 5.20 francs); (2) The high rate of transportation; and (3) the customs duty (70 per cent ad valorem, price of goods including transportation).

But, even with that, we can compete with any other concern. Many times I told the honorable American consulate in this town we would do more and more business if the dollar were not so dear, if transportation was reduced by direct and frequent lines from New York to Tunis, and if the duty were fixed at the pre-war rate.

The market is very good, farmers are making plenty of money and are practically sold to the power farming idea. One of our salesmen could have sold, in a six-weeks house-to-house work campaign, 25 cars and 15 tractors if we had had them. We have no stock on account of no transportation facilities, but we expect to get more machines very shortly. All are sold in advance, and we will run short again before the end of the year.

If it is in your power to do something to relieve us, do it as soon as possible for us and for American exporters also.

Louis Rameau, Tunis, Tunisle, North Africa.

Rich Gasoline Shale Deposits in Latrobe, Tasmania

Editor Motor World: Again I must congratulate you on your paper, Motor World. No doubt a lot of your articles do not apply to Tasmania owing to the sparse population and the high price of petrol—4 shillings a gallon, which is very different from what you pay.

Here in Latrobe we have a fine deposit of shale which is rich in petrol and oil,

Letterhead designed for New Zealand dealer. Do you want a letterhead designed f

MORTLOCK & COMPANY

AUTOMOBILE AND MOTOR TRUCK REPAIRING

HAWERA, TARANAKI NEW ZEALAND

Wants America's Help

Editor Motor World: I left the United States, where I was employed in a big tire factory for five years in New Jersey. My health was very poor and the American doctor selected Tunis to re-

and one hundred other products, but great difficulty has been met in trying to get this going.

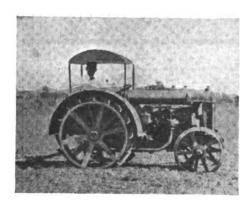
I would be pleased to give you any further particulars of this deposit and the product if you are interested.—G. Charlton Rudge, Latrobe, Tasmania.



Automotive Equipment

OTWELL CANOPY FOR FORDSON TRACTORS

This is a canopy to be placed over the driver's seat on the Fordson tractor, after fenders have been applied. It is intended to protect the driver from sun and rain and fastens to the fenders without extra bolts of any kind. A special rod enables the canvas to be kept tight at all times. Price \$45.—Tractor Equipment Co., 271 Pacific Avenue. Detroit.



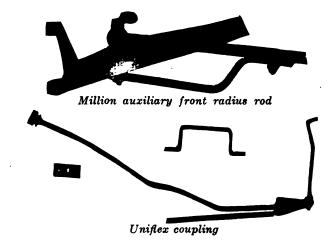
Otwell canopy for Fordson tractors

UNIFLEX COUPLINGS

This is a coupling consisting of two shaft members and a set of blocks. The shaft members are jawed hubs adapted to engage each other through the blocks. The amount that the blocks slide varies according to the displacement of the shafts. The coupling can be made to operate in either direction and the hubs can be made split or flanged. Made in all sizes to meet standard requirements.—Uniflex Coupling Co., 246 Chestnut Street, Philadelphia.

MILLION AUXILIARY FRONT RADIUS ROD FOR FORDS

This is an auxiliary radius rod to keep the front axle of the Ford true and straight. The front end of the rod has a hole in it, and this goes under the nut on the front axle, the rear end being attached to the radius rod by means of a strap which encircles both the radius rod and the auxiliary radius rod. Finished in black enamel, and may be installed in a few minutes. Price \$2 per set complete with Million Motor Co., clamps. Adrian, Mich.



MILLION FOOT ACCELER. ATOR FOR FORDS

This is a foot accelerator consisting of a solid rod which goes through the footboard on the right side of the engine and connects with a triangular piece to which is also connected the regular hand control. The device fits the standard Ford connections, and it is only necessary to drill one %-in. hole in the floorboard. The device is furnished with all screws and full directions for installing. Finish is in nickel and black. Price \$1. Million Motor Co., Adrian, Mich.

Western Electric Direct Connection Farm Light Plant

THE Western Electric Company, 195 Broadway, New York City, is now manufacturing a direct-connected farm light plant. This is a 32-volt outfit, designed for power and light where the buildings are not too widely scattered. The complete outfit is made up of a direct-connected set and a storage battery of 16 cells. The set includes the generator, the engine and the control panel with the necessary automatic devices for regulating the service.

Kerosene in Base

The engine will burn kerosene and the supply of kerosene is kept in the base of the outfit, which is in the form of a tank. The kerosene is pumped to the carbureter by vacuum speed. The engine develops 3¼ hp. and is started with gasoline. By pressing the starting lever on the control panel the generator of the set operates with the motor turning the engine over to start it. To maintain a constant speed on the generator the throttle is governed to maintain a speed



of 1000 r.p.m. Lubrication is by splash. Cooling of the engine is effected by air and in this way some of the air is pumped down to the cylinder head and then passes around the cylinder and through an opening. It is then discharged into the air through the fan blade.

In addition to being electrically started the engine has an automatic stop. After it is started it will continue to run until the battery is fully charged and then it automatically stops.

Generator Capacity 1500 Watts

The generator has a capacity of 1500 watts and is connected directly to the engine. The engine shaft also acts as the generator shaft. An auxiliary pulley is provided on the end of the generator, so that this can be belted to shafting or other machinery. This pulley is 4 in. in diameter, and if it is desired to use the engine for power purposes only the generator can be disconnected from the battery, so that the generator is not in operation.



Repairshop Shortcuts

From Motor World Mechanics

No. 2206—THREADING A STUD IN A LATHE

To thread a stud in a lathe so that the threads will not be damaged on either end, turn down a soft steel nut so that it will fit into a lathe dog, then split the nut in two with a hacksaw. The halves of the nut are then placed around one end of the stud and the set screw on the dog tightened up o as to prevent the stud from turning.—A. R. Ernstdorf, Logan, Iowa.

No. 2207—OUTLINE RACK FOR TOOLS

A tool rack with the places for the tools marked with their outlines is made by putting a large sheet of blueprint paper on the board and then laying the tools on this paper in their proper positions. The board and paper are then exposed to the light with the result that the parts of the paper under the tools will remain white and the parts exposed to the light will become dark blue. When the right color is obtained, the tools are removed and the paper washed well in water. When dry it can be pasted or tacked to the board and the tools hung in their places with hooks.-Harold R. Francis, Los Angeles, Cal.

No. 2208—STRAIGHTENING A TWIST-ED FRAME

A twisted frame can be trued up with a chain hoist without the necessity of heating the frame. By attaching the hoist diagonally, using chain slings at the ends, the frame can be pulled back in place. It will generally be necessary to pull the frame a little more than straight so that the spring of the frame will not let it come back again. Frequent testing is necessary to insure a good job.—V. L. Cameron, McClelland Gentry Motor Co., Oklahoma City, Okla.

No. 2209—REMOVING FORD SPINDLE BUSHINGS

Ford spindle bushings are removed by putting a hack-saw blade through the bushing, then fastening it in the frame and sawing one side of the bushing through to the forging If necessary, two cuts can be made at different places. The split bushing can then be easily driven out with a punch.—Captain E. S. Coutant, Stuart, Fla.

No. 2210—HEADING FORD UNIVER-SAL JOINT RIVET

To head the rivet through the universal joint and drive shaft of a Ford

Make a Dollar

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World We will pay you a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

take an old Ford spindle bolt with good thread and screw it into one of the set screw holes in the housing. Grip the head of the spindle bolt in a vise. The rivet may then be headed over by means of a punch through the hole on the opposite side.—I. K. Carter, Stella Auto Co., Stella, Mo.

No. 2211—HOLDING FORD CYLIN-DER-HEAD BOLTS

On some of the Ford models it is necessary to insert the rear bolts in the cylinder head before the head is put in place as they will not go in on account of the

close proximity of the dash. In order to hold these bolts up clear of the gasket and so prevent damage, some short pieces of telephone line wire are bent in the shape of large staples so that they will go around the bolts and hold them up by the spring of the wire. The staples should be put about 1 in. below the heads of the bolts to clear the gasket.—L. H. Fey, Northfield, Minn.

No. 2212—UNIVERSAL SOCKET WRENCH SPRING

A heavy coil spring wrapped around the universal joint of a socket wrench will hold the wrench straight until it is necessary to make use of the universal feature. Ordinarily the wrench has to be held straight with one hand until the handle is turned or even while the handle is turned so that the application of the spring saves the use of one hand.

—V. L. Cameron, McClelland Gentry Motor Co., Oklahoma City, Okla.

No. 2213—SPARK PLUG CLEANER

A spark plug cleaner is made from a vaseline or other small bottle which has a screw top. A hole is cut in the tin top just large enough for the plug to be screwed through the tin. The bottle is then half filled with a mixture of sand and gasoline and the whole outfit with the plug in place is shaken vigorously. The action of the sand and the gasoline cleans the plug which is afterwards rinsed in clean gasoline.—Harold R. Francis, Los Angeles, Cal.

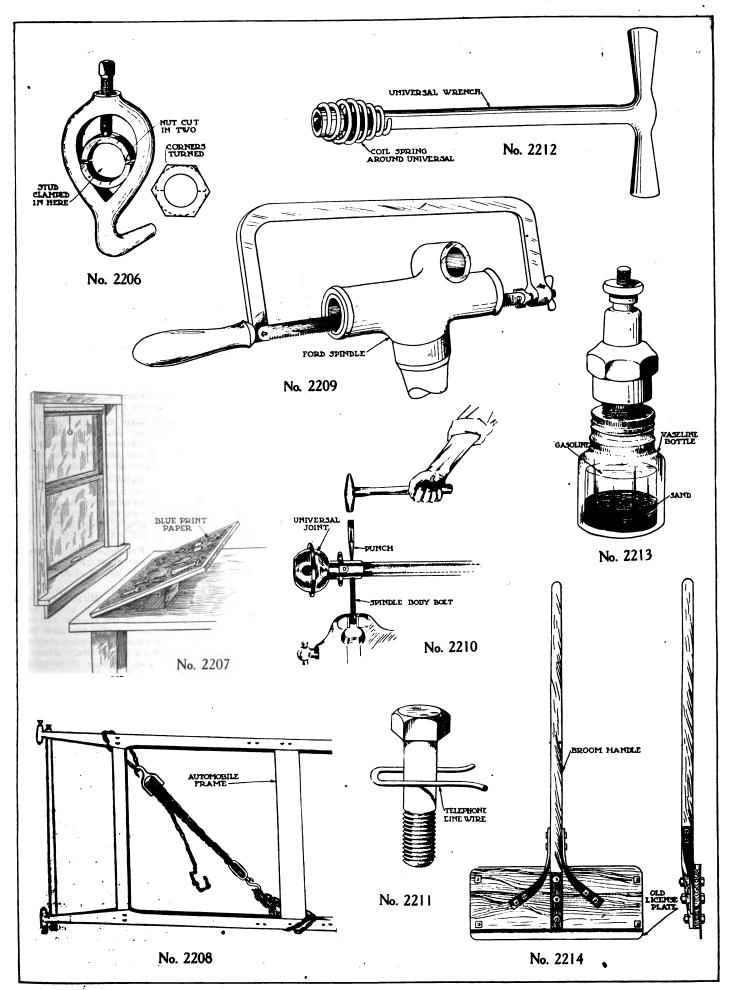
No. 2214—GARAGE FLOOR SCRAPER

A garage floor scraper for removing accumulations of grease and dirt is made by attaching an old license plate to the end of a wooden handle, a cross board being nailed or otherwise fastened to the handle to brace the license plate. Iron braces from the handle to the crosspiece prevent movement in this direction. The scraper is self-sharpening against the cement floor—Harold R. Francis, Los Angeles, Cal.

Plan Big Demonstration at Madison

MADISON, WIS., July 5—Plans are being completed for the annual mid-summer automobile, truck and tractor show to be held here Aug. 26-29 in connection with the Dane County Fair. Officials of the Madison Association of Commerce announced to-day that dealers representing twenty-five makes of tractors had spoken for space. Plowing demonstrations will feature this part of the show.





The RETAIL NEWS

SOUTHWEST

Leavenworth Motor Co., Leavenworth, Kan., has been organized with \$12,000 capital to have the agency for Oldsmobile in Leavenworth, Jefferson and part of Platte counties. John G. Barnes is president and other officers are: Vice-president, Charles E. Curtin; secretary and treasurer, Charles H. Masterson. It is erecting a three-story building at Sixth and Delaware Streets. It will also conduct an accessory department.

Neals Motor Co., Kansas City, Mo., has succeeded A. W. Doley as Nash distributers in this vicinity. J. W. Murden is manager of the new company. Its main branch is in Tulsa, Okla.

Babst-Dort Motor Co., Kansas City, Mo., has taken a ten-year lease on a 2-story building being erected at 2710-12 McGee Street, having 25,000 sq. ft. of floor space. Salesrooms will occupy the main floor, with storage space in the second. It will be ready for occupany November 1.

Stubbs Motor Co., Kansas City, Mo., has taken over the distribution of the Anderson car for this territory. Salesroom and service station will be at 1519 McGee Street. A. E. Hirschler is in charge of the wholesale department.

Warne Motor Co., Kansas City, Mo., has succeeded Babst Motor Co. as Ford agents at 3109-11 Gillham Road. W. Hamilton Stone is manager.

G. T. O'Malley Tractor Co., Kansas City, Mo., has been organized to distribute Fordsons. E. T. Howard is sales manager.

R. P. Rice, Kansas City, Mo., has taken over the Flynn Breiting Co., Ford agency, at 3823 Broadway.

Perry Motor Co., Kansas City, Mo., Ford agent, has moved to its new building on Minnesota Avenue.

Stockwood Tire Co., Kansas City, Mo., has been opened at 2301 Grand Avenue, handling Oldfield tires. Other branches of this company are at Independence, Lee's Summit and Excelsior Springs, all in Missouri.

Bruening Brothers, Kansas City, Mo., are enlarging their establishment for the sale of Apperson cars, Bethlehem trucks and Plowman tractors. The Bruening branch at Wichita, Kan., has been purchased by Love Smith and Robert McKay.

Gentry Thrackmorton Co., 1807 Grand Avenue, Kansas City, Mo., has opened as a tire depot.

Osgood-Robinson Tire Co., 1518 McGee Street, Kansas City, Mo:, has opened a tire and service station.

Mailory Motor Co., Kansas City, Mo., with W. E. Mailory as president, is putting up a building at Twentieth and McGee Streets.

Brannock Terreil Tire Co., 1512 McGee Street, Kansas City, Mo., will distribute Curtis tires.

Arnold Service Co., 1406 McGee Street, Kansas City, Mo., has opened a service and accessory station with T. M. Arnold as proprietor.

U. S. Motor Parts Co., Kansas City, Mo., with Stevenson and Mills as managers, has been opened at 404-406 East Eighteenth Street.

Utz Electric Shop, St. Joseph, Mo., Prest-O-Lite distributer, is putting up a service and sales building, 50 x 110 ft., at Twelfth and Farson Streets. It will be ready for occupancy in July.

Kessier Tractor Sales Co., St. Joseph, Mo., has been organized to sell tractors and farm machinery. C. A. Kessier is manager.

Leavenworth Storage Battery Co., Leavenworth, Kan., has been organized by R. E. Dickhut and C. A. Pinnell to sell Willard storage batteries. A sales and service station has been opened at 502 Shawnee Street.

Heines-Schram Tire Co., Kansas City, Kan., has been opened at 842 Minnesota Street for the sale of tires and accessories.



To a layman in the motor trade, San Juan, Porto Rico, would not suggest a large field for motor sales. But the above picture shows the new five-story building just erected there, at a cost of \$115,000, to house the business of Pietrantonio & Sojo, automobile dealers of that city, who have built up a business with a working capital of \$400,000 in the 11 years since they started. The first floor contains a general store room where automotive equipment is handled. The second floor is the sales room for Oakland, Odsmobile and Pierce-Arrows. The third and fourth floors are given over to the tire and rubber departments, while the top story contains the business offices. The firm's trade mark is in Spanish, "La Tienda de Goma," which, the translator declared, means "The Tire Store."

Dill & Forbes, St. Joseph, Mo., will do general repairing at 307 N. Eleventh Street.

Avenue Tire Shop, St. Joseph, Mo., for the sale of tires and accessories, has been opened at 1117 Frederick Street, with George Caldwell proprietor.

Leavel Buick Agency, Leavenworth, Kan., has opened a tire and accessory shop at 516 Delaware. It is selling Dodge cars and Fordson tractors in this territory.

MIDDLEWEST

George Meekma, Rhinelander, Wis., has been appointed Mitchell dealer in Oneida County and vicinity.

Roy S. Seuberth, Kilbourn, Wis., has assumed the general management of the Dixon Bros. Garage in that city.

The Northwestern Motor Car Co., 2418

North Avenue, Milwaukee, Ford dealer, has increased its capital stock from \$75,000 to \$150,000. A new garage, salesroom and service station, costing \$60,000, has recently been completed.

The Lincoln Motor Car Co., 820 Third Street, Milwaukee, Wis., Ford dealer, has increased its capital stock to \$50,000. The company is building a new garage and service station at Third and Center Streets, to cost \$25,000.

The Brunileb & Wing Co., Milwaukee, Wis., is a new corporation with a capital stock of \$50,000, organized to deal in new and used motor cars, parts, automotive equipment, etc. The incorporators are Fred Brunileb, William Wing and Walter Beinert.

E. E. Schneidewind & Co., Belleville, Ill., has opened a garage and sales room for the sale of Peerless, Saxon and Chalmers carsat 220 East B Street.

Overland Believille Co., Belleville, Ill., with William Schuff president and manager, has moved into new quarters at 301-307 West Main Street.

Meyer Bros., Belleville, Ill., will sell Cadillacs and Hupmobiles at 105 North Illinois.

Belleville Dodge Agency, Belleville, Ill., is now in its new quarters on West Main Street.

Willard Battery Station, Belleville, Ill., has been opened at 219 East B Street.

Ford Agency, Believille, Ill., new building on East Main Street has been opened.

Fish & Hand Sales Co., Madison, Wis., has been appointed representative of the Mac-Lar storage battery and is enlarging its facilities at State and Fairchild Streets to provide a battery service department.

Chamberlain & Delworth Co., Waukesha, Wis., has been organized by George Chamberlain, formerly with the Waukesha Motor Co., and M. R. Delworth of Minneapolis. A garage and repair shop is being established at St. Paul Avenue and Mary Street.

Mason Tire & Rubber Co. of Wisconsin. has been incorporated at Milwaukee by E. Gessert, E. Gehrke and E. Ludwig. The capital stock is \$4,500.

The A. E. Becker Co., Milwaukee, Wis., has been incorporated with a capital stock of \$20,000 to engage in the general tire sales and repair business at Fourth and Wells Streets. The new concern has been appointed distributer of the Oldfield tire. Albert E. Becker is president; Arthur C. Schleiger, vice-president, and C. L. Firnhaber, secretary and treasurer. All were formerly with the Harley-Davidson Motor Co., Milwaukee. Mr. Schleiger for two years has been a raveling representative of the Lee Tire & Rubber Co. in Wisconsin.

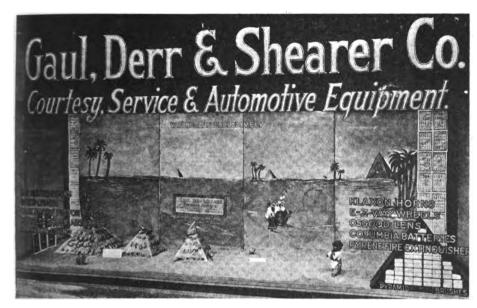
The Lindsay-McMillan Co., 45 Third Street, Milwaukee, has increased its capital stock from \$50,000 to \$100,000. A 3-story warehouse is being established at 242 Broadway and the plant on South Water Street is being enlarged.

Lyman B. Hart, Grand Rapids, Mich., is the new distributer for the McGraw tire inwestern Michigan, operating as the Mc-Graw Tire Shop, on Market Street.

Diamond Avenue Garage Co., Grand Rapids, Mich., has moved into a new location of Michigan Street, and will hereafter beknown as the Lewis Auto Co. Fred S. Lewis and J. Frank Lewis will be associated.

Bennett's Garage, Lewiston, Idaho, formerly known as the Fifth Street Garage on Fifth Street, will move to its new quarters on D Street, between 4th and 5th, about Aug. 15. The new building is 108 x 102 ft.





Editor Motor World: I note with pleasure that in your issue of June 11 you printed a photograph of our special garage equipment window. Our window display man has just put over another good one, a photograph of which I am enclosing. He had four panels painted on cardboard in water color to be used as the background, as shown. The bottom of the window was covered with sand, and three pyramids were built of sanded cardboard, on which Pyramid brushes were fastened. We secured from a toy store the three figures shown in the foreground. There was an electric fan concealed at the right side of the window, which sent a breeze across the desert, keeping the flag and the sask of the Arab constantly in motion.—George B. Shearer, President, Gaul, Derr & Shearer Co., Philadelphia.

C. H. Bennett, manager for the past two and a half years, will be manager and proprietor under its new name.

The Barret Auto Sales Co., Dayton, Ohio, has been chartered with a capital of \$50,000 by H. A. Estabrook, H. R. Barrett, H. G. Meenach, James Hassett and Charles W. Hoffritz.

THE SOUTH

King Motors Southern Co., Atlanta, Ga., has been organized by Walter Hopkins and Robert Ingram to handle the King car in Georgia, Florida, Alabama and Eastern Tennessee. Mr. Hopkins was formerly Ford dealer at Newnan, Ga.

Grant Motor Co., Atlanta, Ga., will handle the Davis car throughout Georgia. Dan Iseminger will direct the sales.

J. H. Sims, Atlanta, Ga., has disposed of his agency, organized under the name of the Superior Motor Sales Co. for the sale of the Superior truck.

Victory Motors Co., Atlanta, Ga., has taken over the Moon agency for that city and parts of Georgia.

NORTHWEST

J. F. S. Kerik, Burlington, Iowa, has opened a repair shop at 418-420 N. Main Street.

Arnold & Arnold, Burlington, Iowa, have opened a garage and repair shop at 212 Washington Street.

Theo. Johnston, Sioux Rapids, Ia., has sold his garage to J. T. Carpenter, W. J. Sutton and Leonard Tollackson.

Raiph H. Long, Sac City, Ia., has disposed of his interest in the Motor Inn to his partner, J. R. Mendenhall.

White Way Garage, Adair, Ia., has been sold to W. C. Schwenneker, Leon O. Sparling and E. W. Sparling.

Ed. Fite, Russell, Ia., has bought the garage owned by Theo. Lemley.

Olaf and H. M. Olsen, Bode, Iowa, have bought the Bode Auto Co.

Earl Cory, Elkhart, Iowa, has sold his in-

terest in the Elkhart Auto Co. to Harvey Satterly.

The Day and Night Garage, Dyersville, Iowa, has been purchased by Andy Schlichte.

Maurice Locke, Humbolt, Iowa, has bought the Conwell Garage.

Thomas Laing, Sac City, Iowa. has bought an interest in the Holmberg Garage.

C. E. Paulson, Omaha, Neb., has bought the Nichols-Rice Motor Co., which will now be known as the C. E. Paulson Co.

The Paterson-Haward Motor Co. and the Hayward-Cameron Motor Co., of Omaha, Neb., have joined in the lease of the east half of the Omaha Garage, Twentieth and Haney streets, for a service station.

Perry Miller, Correctionville, Ia., has bought the Correctionville Storage Battery Co. from Herman Lahann.

Harley Sutton, Bennett, Neb., has bought the Hendee Garage.

John Baumann, College View, Neb., has bought the Elcar Inn from A. C. Franske.

James McHarry, Juniata, Neb., has bought the Juniata Garage.

Ed Chase and Lloyd Daniels, Osmond, Neb., have opened a repairshop.

Charles and John Ruchman, Scottsbluff, Neb., have bought the Scottsbluff Vulcanizing Co. from Andrews Brothers.

- A. S. Walker and C. F. Johnson, Atlantic, Ia., have opened an Exide Battery service station.
- G. W. Wilson, Henderson, Ia., has opened a truck factory.
- H. F. Porter, Atlantic, Ia., has bought an interest in the Cushing Machine & Auto Co.
 John Leffler, Holdrege, Neb., has bought the McCook O. L. D. Garage from E. J. Ludwig, Marion, Neb.

The Scottsbiuff Buick Co., Scottsbiuff, Neb., has bought the South Side Garage.

Frank V. Wickham, Thedford, Neb., has bought the Honts Garage.

Morrison & Pique, Crawford, Neb., have opened a repairshop.

Larson & Edholm, Wayne, Neb., have bought the garage of William Rennick.

- T. C. Hagedorn, Brunswick, Neb., has bought the repairshop of the Brunswick Co.
- J. I. Foss, Beaver City, Neb., has bought the automobile supply business of Aldrich Brothers.

William Ward, Hatington, Neb., has bought the interest of Robert Sterling in the Sterling & Dyson garage. The firm's new style is Dyson & Ward.

Salisburg & Robison, North Platte, Neb., have bought the business of the Nebraska Rubber Co.

- L. G. Larrimer, Ord, Neb., has bought the Ord Garage.
- F. J. Weidmann, Plainview, Neb., has bought the interest of his partner in the Weidmann battery storage station.
- S. Renner, Western, Neb., has bought the garage of Guy Nickel.
- M. Scoville, Franklin, Neb., has bought an interest in the East Side Garage.

Henry Brown, Oconto, Neb., has bought the Oconto Garage.

- A. W. Hoatson & Son, Sutherland, Neb., have bought the Sutherland Garage from J. H. McNeil.
- Z. L. Osmun, Stromsburg, Neb., has opened a repairshop.

Cynona & Honshon, Loup City, Neb., have bought the Criss Garage.

The Tekamah Steam Vulcanizing Co., Tekemah, Neb., has opened under the management of A. Thompson.

G. R. Hotchkiss' & Brother, Niobrara, Neb., have bought the Verdigre Garage, Verdigre, Neb.

The Columbia Co. of Nebraska, Omaha, Neb., has moved into larger quarters at 2212 Farnam Street.

PACIFIC COAST

The Tire Company of California has opened a branch at 61 Third Street, San Bernardino, with Harry N. Cytron as manager.

Stickei & Brush have secured the Willard storage battery agency for San Bernardino, Cal., and opened a service station at 280 F Street.

The Haldeman Tire Co., distributer of Miller and Delion tires in Los Angeles and San Francisco, has opened a branch at 722 State Street, Santa Barbara, with J. O. Seeple as manager.

- J. W. Hulen and W. R. Stow have organized the Santa Barbara Motor Co. and opened Dort and Studebaker salesrooms at 724 State Street, Santa Barbara.
- R. E. Davis succeeds Holland & Waugh as owner of the California Tire Co., 134 East Haley Street, Santa Barbara, Cal., and will enlarge his plant by the erection of a new building.

. NEW GARAGES

H. C. Prange Co. (60x85).. Sheboygan, Mich. Appleton Engine Works....Appleton, Wis. American Automobile Co...Milwaukee, Wis. E. E. Rogers (120x120).....Milwaukee, Wis. Joseph Kalista (30x75).....Milwaukee, Wis. Mrs. M. Morton (80x50)....Milwaukee, Wis. Chamberlain-Delworth Co.... Waukesha, Wis. Leach & Christenson...........Hartford, Wis. Leon Colburn......Pardeeville, Wis. Hildus Bratvold (30x120)....Stoughton, Wis. Hedding Motor Co. (60x120)...Superior, Wis. Reilly & Seidl (40x180)....Menominee, Mich. Shelburn Fisher......Centerville, lows Paul B. Naylor......Perry, Iowa Joe Vrana......Iowa City, Iowa Blessin Auto Co.......West Union, Iowa Moline-Knight Garage....Cedar Rapids, Iowa Majestic Taxi Co......Fond du Lac, Wis. F. A. Spearbraker......Clintonville, Wis. Lincoln Motor Car Co.....Milwaukee, Wis.



THE LAW

By George F. Kaiser

PERPLEXED

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Garage Owner Seeks Light on Lease Extension

Editor Motor World: Having been satisfactorily advised by you on a previous subject, I take this opportunity of again consulting you. This, however, is with reference to the lease which I hold. I might say, however, that I am the sub-tenant. The thing that requires settlement is as follows:

This garage was built for a firm in New York, the lease to be for 10 years with an option of 10 years longer. I sub-leased the garage from this firm in January, 1918, the lease to expire Dec. 31, 1922, a period of 4 years with the option of 10 years longer.

The question now arises whether I can claim this option, as the firm does not wish to renew the lease for a second period of 10 years, and the landlord does not wish to talk business at the present time as he is desirous of selling the property after my 4 years is at an end and the business is good. His son would run the business that I have worked up.

There is, to my mind, a loop-hole, and that is as follows: While the lease expires December, 1922, the first period of the New York firm's lease with the landlord expires in 1921, also in December; which gives me in my lease, one year longer than the New York firm has the power to give, according to the first 10 year period and which would bring them into one year of the second period.

Should this be a mistake on the New York firm's part, am I justified in holding them to a second period if I can do so, or does the lease with the landlord and the New York firm have precedence over my lease, seeing that I am a subtenant? Is it advisable or necessary to have my lease recorded?—Harry H. Archer, Red Lion Garage, Flushing, N. Y.

Answer—The tenant who sub-let the premises to you cannot, of course, rent them to you for a longer time than he has received them from the landlord. If he has contracted to do this you may have a claim for damages against him, but that, of course, is another matter.

Your question is not phrased quite clearly so I have had a little difficulty in understanding just what you are driving at.

If, however, the other tenant sub-let the premises to you with an option of a renewal it is up to him to take a new lease so that he can carry out his agreement and give you the extra 10 years. If I were you, I would immediately give all my papers, the lease, etc., to my local attorney for examination, as you cannot be properly advised by any one unless that person has the opportunity to examine them.

Cars Must Be as Represented

A CASE involving the sale of an automobile was recently decided by the West Virginia Court. A dealer sued the purchaser of a car for the balance of the purchase price. The purchaser claimed that the dealer had warranted the car to be superior to any other at the price, that it would run to his satisfaction, and that if trouble arose he, the dealer, would remedy it, but that the car when finally delivered would not run and could not be made to run by either the dealer or others employed to make it run.

The court held that where an automobile delivered is of the same general description as the one sold, but is not a merchantable article of the kind purchased, the buyer should be allowed the difference between what the article is actually worth and what it actually would have been worth if it had been as warranted. Gorly vs. Bridgman. 88 S. E. (West Virginia) 88.

Then What?

Supposing you repaired a man's car and he then took it down the street and sold it on a conditional bill of sale without paying the bill.

Where would you get off?
Have you any questions you want answered?

Ruling in Insurance Clause Calling for Immediate Notice

The highest court in New York state has just decided that a condition in an automobile insurance policy which requires immediate notice to the company in case of accident does not apply to a car owner within ten days before giving notice to the company after the boy is knocked down in the street, even if he relies upon a statement that the boy is only slightly hurt and the injury does not amount to much.

The court said that "Under a policy requiring immediate notice to the insurer

of accidents insured against, the condition does not apply to every trivial occurrence even though it may prove afterward to result in serious injury. If no apparent harm came from the mishap, and there was no reasonable ground for believing at the time that bodily injury would follow, there was no duty upon the insured to notify the insurer."

The plaintiff here had a policy of automobile insurance issued by the defendant to protect it against accidents caused by its automobiles, containing the usual clause for immediate notice. It is conceded that on Jan. 20, 1913, one of its machines ran into and struck one Joseph Bolger, causing him to sustain injuries which subsequently resulted in a judgment in his favor for over \$4,000. Notice of this accident was not given until some ten days later, an I the defense is based upon the alleged breach of the condition with regard to notice. The trial judge charged the jury that the plaintiff could not be required to give notice if it had no knowledge of the accident itself and further that even if it had knowledge of the occurrence it was not called upon to report if the circumstances were such as would not call upon a reasonably prudent person to anticipate that they might be the basis for a claim under the policy. Under this charge the jury found a verdict for the plaintiff. The judgment entered upon this verdict, however, was reversed by the Appellate Division and the complaint dismissed.

Singularly enough, there is no direct evidence as to what actually occurred on Jan. 20. We do not know that injuries were received serious enough to justify a large recovery in damages, but as to the actual event both sides seemed content to rest upon the subsequent account of the driver of the truck. Having seen in a newspaper a statement that a Haas automobile had hit a boy, the manager of the plaintiff, on the morning of the 21st, asked the driver with regard to it. He replied that "it didn't amount to anything." He was driving into a garage and the boy ran out from the curb and struck the machine and he was knocked down. The manager asked if the boy was hurt. The driver replied: "Only slightly, for I brushed off his clothes and he went away. There was a policeman right there. It wasn't necessary to report any accident. I don't think it amounts to much."

Under these circumstances the insured was not absolved from making the report by its policy.



Oldsmobile Is Heavier, Larger and Much Refined

Wheelbase 2 in. Longer— Larger Radiator—Price \$200 Higher Than **Preceding Model**

HEAVIER and larger model with many minor changes, resulting in improved design and appearance, marks the new 1920 Oldsmobile line, the new specifications for which have just been made public. The price is \$200 higher than the preceding model.

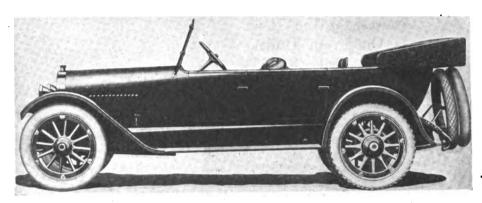
The 8-cylinder engine, which is of Vtype remains practically the same, as most of the changes are in the chassis and body details. An increase of 2 in. in the wheelbase makes it 122 in., and a somewhat larger radiator causes the car to appear of increased size. The gain in weight, compared with the increased body space, is not considered excessive.

45-B Succeeds 45-A

This model, marketed as 45-B and replacing the old 45-A, has a more rigid frame, having a depth of 7 in. and a width of 2½ in. This increased rigidity is also carried out in the attachment of the body to the frame, as more and larger bolts are used. No shims are utilized along the entire length in fitting the body to the frame. Greater rigidity has been given by better front fender supports, neater and stronger headlamp brackets, longer and wider front springs and larger spring bolts. Phosphor bronze spring bushings now are employed for better wearing qualities.

The steering wheel is larger with the steering gear strengthened throughout, particularly as regards larger bearing surfaces on the steering gear half nuts and a caster type of front axle. This gives better steering and improved road ability.

Probably the most important change in the chassis is the use of an entirely new rear suspension by means of which the frame spring horn is brought down at



Not only is the new Oldsmobile bigger and heavier, but the larger radiator makes it look still larger than it really is

the rear, allowing the spring to be exceptionally flat. The spring is underslung beneath the rear axle. The drive has been refined to some extent, Spicer universal joints being employed in place of the type previously used. The use of the new spring suspension has given greater increase in side clearance between the rear wheels and the wheel housing. The present type of frame construction also has reduced the turning radius, in spite of the increase in wheelbase.

The engine mounting has been altered slightly, swivel blocks being now employed instead of the more rigid mounting of the previous model. A biplane type of fan is used instead of the single type and a Goodyear non-stretchable fan belt replaces the leather belt. A slight change has been made in the engine oil pan to provide better drainage.

Changes in Body

In the trimming and body work, there are a number of minor alterations. The dust shield is brought out from the body and is of more refined construction. There is now a convex running board housing and a new method of attaching the rear fenders which holds them more rigidly The door handles are than formerly. now on the outside and the inside door levers are longer and exceptionally easily operated. Improvements in the fittings and equipment include the mounting of a clock on a door in the dash, leather-covered bevel body rail, hand-buffed leather, improved windshield design, improved auxiliary seat construction, door pockets for the side curtains, tool carrier in the door, and a 20-gal. gasoline tank instead of a 14-gal.

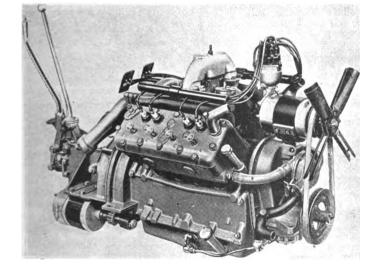
The Power Plant

The Oldsmobile power plant has its cylinders cast four in block and set at a 90 deg. angle. It is a detachable head, 2% by 4% unit, with counter-balanced crankshaft, Lynite pistons and a single centrally located camshaft. Cooling is by centrifugal pump circulation, lubrication is by means of an automatic pressure feed gear pump with the oil forced to the main and connecting rod bearings through drilled crankshaft.

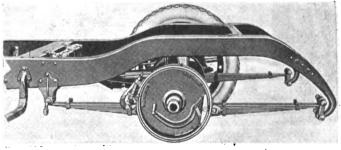
A unit powerplant construction is used, with the leather-faced cone clutch housed within the flywheel and the threespeed gearset in unit with the flywheel housing and bolted to the rear face of the crankcase. The propeller shaft is hollow, with two Spicer universal joints, the former being a telescopic type to take up end play, due to the rear spring oscillations.

The spring dimensions are 39 x 21/4 in the front and 56 x 21/4 for the rear.

Tires are $34 \times 4\frac{1}{2}$ in place of 34×4 . The price of the car is \$1,895 compared with \$1,695, price of the preceding model.

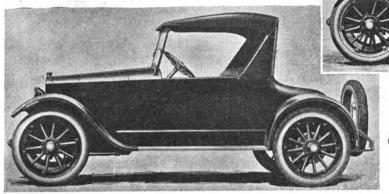


The picture at the left shows the power plant of the new 45-B, which succeeds the 45-A. The picture below shows the new form of spring suspension at the rear. An extended drop in the horn permits a flat spring



New Cleveland

Newest of the New Is Out from Under Cover—Price \$1365

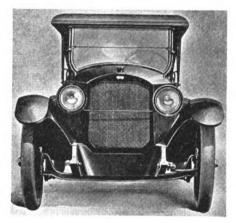


Four views of the bodies on the new Cleveland

WAITED for weeks by the trade, the new Cleveland car has come from under cover. Dealers have contracts in many places, yet, until last Friday night not one of them knew the price. Those dealers who had contracts knew something about the car—but the rest of the trade didn't.

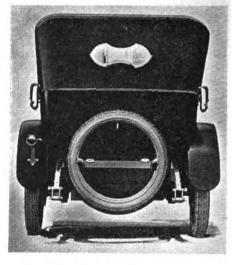
Everyone knew that the car was a little sister to the Chandler and that the relationship between the new Cleveland Automobile Co. and the Chandler Motor Car Co. was very close. The financial success of Chandler also had considerable to do with the fact that the no-parvalue common, given with the preferred, reached \$700 this week Monday morning. The car is an overhead-valve six on a

112-in. wheelbase, carrying five passengers and selling at \$1,365. A roadster will be sold at the same price. Enclosed bodies will be added to the line later. In appearance the car ranks well with the post-war creations and indications are that it will have a good sale. The engine and axles are of Cleveland design and manufacture; the clutch is a Borg & Beck; the transmission, Mechanics Machine Co.; lighting, starting and ignition, Gray & Davis; universals, Mechanics, and the body will be manufactured by the Fisher Body Co.



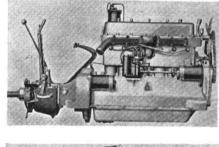
The engine is a detachable head unit, the cylinders are cast in block. The valves are operated by rocker arms, the entire valve assembly being in a unit with the detachable head. The cylinder dimensions are 3 by 4½ in.

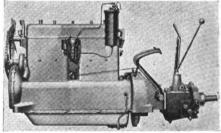
Cast iron pistons with three rings are employed. The piston pin bearing is in the top of the connecting rod. The practice of using S. A. E. standards has been adhered to throughout. The crankshaft is carried on three bearings all lined with die-cast babbitt. The shaft diameter is



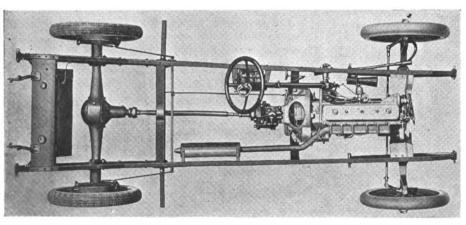
2 in. at the main bearings and 1% in. at the crankpins.

Morse chain drive is used for the camshaft and generator. The camshaft, which is located in the crankcase, is 1 in in diameter and can be removed endwise after taking off the chain cover. The valves are driven through mushroom tappets and vertical pushrods to the overhead rockers which operate directly on the valve stems. The rockershaft is made in two parts of seamless steel tubing. Within it there is an oil wick supplied by two overhead oilers, each of



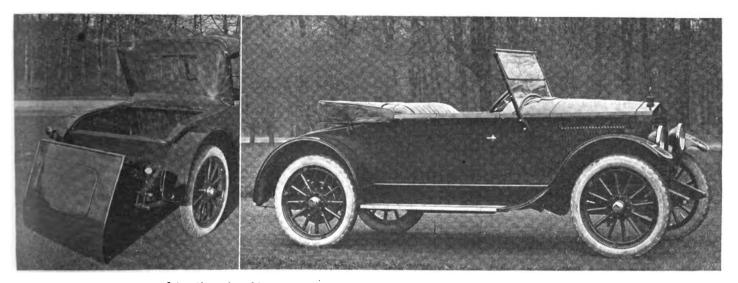


The motor presents an exceptionally clean and workmanlike appearance with its enclosure of parts



The chassis of the new Cleveland departs in no radical way from standard practice, the accepted and proved designs having been followed





In the new Essex roadster there is a big space at the back, which, when the cover is removed, permits the carrying of trunks, sample cases and simple articles

Essex Makes a Roadster

In addition to the passenger car the Essex Co. is now mounting a roadster on the same chassis. This is a bevel line car with a large compartment behind the rear seat. The unusual space at this point makes it possible to utilize this car for semi-commercial purposes if so desired.

If still more space is needed than is accessible by the hinged cover the entire cover may be lifted off by taking out the two screws and opening four locks which are operated by square keys. This converts the car into a small delivery vehicle that can carry trunks, suitcases, milk cans or other articles of similar bulk, and is suitable for use by commercial men.

Another feature is the use of removable top carriers which can be taken off when the top is raised so as not to interfere with body line. The car is finished in the same green as the Essex touring car, with black wheels. The roadster will sell for \$1,595.



King's new "Road King" is now in production

The new King eight, first of the back-to-business series and known as the "Road King," is now in production. The car is geared with a ratio of 4 to 1. While the chassis is of the standard roadster type, the body is made of aluminum and is finished either in scout khaki or coach painters' carmine. The upholstering is Spanish leather. A feature of the body construction is the unique arrangement for carrying the extra wheel. The extra wheel and tire is included in the purchase price. The car retails at \$2,550.

which takes care of one part of the tubular shaft which extends over three cylinders. Clearance adjustment is made by a setscrew through the end of the rocker arm over the valve stem.

A hot air stove is employed to warm the air before it is brought to the 1-in. Stromberg M. B. carbureter and the mixture passes through a passage surrounded by jacket water. Oiling is by pressure feed through a hollow shaft to the main and camshaft bearings. An oil lead is also carried to the chaincase, these leads being supplied by a gear pump which is located in a sump at the rear end of the pressed steel oil pan and driven by spiral gear off the end of the camshaft. An oil pressure gage is carried on the dash. Lubrication of the pistons, etc., is by splash.

Pump cooling is employed in connection with a Mayo radiator. The waterpump and fan are driven by an endless V belt off the generator shaft. The cool-

ing system has a capacity of 3 gal. and all parts of the combustion chamber are thoroughly cooled.

Hotchkiss drive is employed, the rear axle being a floating type with some important features as regards accessibility. The pinion shaft assembly, for instance, is a unit, being mounted on two Timken bearings in an independent carrier which is screwed into the axle housing.

A transmission hand brake is employed with the service brake, a contracting type on the rear axle. The front axle is an Elliot type with steering by the worm and sector Detwaller assembly. The tire size is 32 by 4, with Firestone rims as standard. The wheels are wood spoke. Semi-elliptic spring suspension is used with 38 by 2 in. fronts and 52 by 2 in. rears.

The equipment consists of a one-man four-bow top, Johnson curtain lights, nickel bound, door-opening curtains, Van

Sicklen speedometer, ammeter, choke, ignition lock and the usual tool equipment. A feature is made of the hand-buffed leather upholstery employed on this car. It is the long-grain, bright finish style. The roadster will be a three-passenger style with a suitcase compartment in the rear deck.

Garage Restrictions Upheld

DETROIT, July 8—The right of property owners to restrict a district to residences has been upheld in Circuit Court by Judge I. W. Jayne, who has issued a permanent injunction forbidding the erection of a garage at Seward Avenue and Twelfth Street.

The ruling held that the district west of Hamilton Boulevard was one of residence and that a public garage on the site proposed would constitute an unwarrantable annoyance and a danger techildren.

Wichita Demonstration Will Be Biggest **Event of Its Kind Ever Held in World**

Exhibition Is Intended to Set Forth the Usefulness of the Tractor in Many Phases of Power Farming-Throngs Are Gathering and Beginning Is Good

By J. HOWARD PILE

WICHITA, KAN., July 14-Preparations have practically been completed for the start of the National Tractor Demonstration which begins to-morrow, on the field at Tyler, several miles from this

Nearly seventy companies are represented on the field and these are housed in a number of large circus tents which are situated at one side of the field, the tents stretching for a distance of well over a half mile. The tents house the different models of tractors, plows, farm machinery and accessories. The demonstrations will be carried out each afternoon in adjacent fields.

Although by no means all of the exhibitors have put their machinery in place, there is enough on hand to insure this being the largest demonstration that has ever been held anywhere in the world, even if not another piece of apparatus arrives.

Dust Very Thick

To offset the distinction of greatness, the location selected for the demonstration has been rather unfortunate, as the country roads have not been prepared for the heavy burden of travel placed upon them by the demonstration. No preparations whatever have been made to lessen the terrific amount of dust thrown into the air by the cars and tractors on their way to the field, this in spite of the fact that this is right on the very edge of the oil sections of Kansas, and but small expense and trouble would have been entailed by the application of oil. Cars, tractors, exhibitors and everything are continually covered with clouds of fine dust.

There is a decidedly strong tendency toward the exploitation of the tractor as an all-purpose machine rather than a machine to pull plows, and this is shown in the increased number of binders, mowers, threshing outfits and other tractor operated machinery.

Among the new models which have arrived to date is the Four Wheel Drive made by the Nelson Corp., of Chicago. This drives through all four wheels, using a chain from the gearset to both front and rear wheels. The wheels are all of an equal height and the spokes are tangentially laced so that they can be made lighter. The price is \$1,765.

The Wallis four-wheel model is another new one. It supercedes the threewheel model which has been made for several years past. Outside of the changes necessitated by the use of the four wheels, the general design does not seem to be radically changed.

The Wolverine tractor is an entirely new machine and is seen for the first time at the demonstration. It is a combined wheel and crawler type, the crawler being somewhat short and placed in between the two rear wheels. The rear of the machine is considerably higher than the front and the frame has a decided slant downward in the front. The price is \$3,200.

The Bean Spray Pump Co. has brought out two models, this company being one of the two representatives of the State of California. These are of the crawler type and are exceedingly low so as to be specially useful in orchard work.

The Cletrac tractor has several refinements, although the general design has not been altered. The principal change is in the tread, which has been entirely redesigned. A novel exhibition has been staged by the Cleveland Tractor Co., which built several horse stalls in the tent and shows the Cletrac occupying one of the stalls, poor old Dobbin being dispensed with.

The Wheat tractor, which started on a transcontinental tour from New York to the Pacific Coast shortly before Memorial Day, has arrived in Wichita and paraded from the city out to the field. This machine will be used in the plowing demonstrations and will then continue on its way west.

Parrett Has Private Test

Supplementing the regular demonstration, the Parrett and Fordson tractors have been under private tests for a couple of days past, the machines being put through plowing, cultivating, mowing, pulverizing, and all general farm operations. Complete records of areas, fuel consumption, cost, etc., are being taken, and while the tests have not yet been completed the final figures will undoubtedly contain most valuable and interesting material. The National Tractor Demonstration will take no account of time or fuel consumption, so that interest will no doubt be aroused by these.

The manufacturers and distributers have made excellent plans for advertising the demonstration, all the windows of local stores showing cards of the event. In addition to this the roads for many miles around have been posted both by the management and by a number of the companies so-that no person who comes within a radius of 50 miles of Wichita can fail to learn of the demonstration. One of the plow companies has arranged to have local stores show plow shares in the windows and a bearing company has succeeded in having some of its bearings

exhibited among the jewels of a jewelry store. One drug store has even gone so far as to feature an "Cliver chilled sundae."

The local newspapers have gone the limit in boosting things. The Eagle on Sunday carried a 48-page supplement devoted entirely to the demonstration, in addition to a considerable amount of tractor news in other sections of the paper.

A daily sheet called the Demonstration Daily is being printed and distributed each day under the editorship of the Campbell-Ewald Co. and at the expense of the Oliver Chilled Plow Co. Five editors and cartoonists are on the job night and day and the paper is being delivered to hotel guests each day before breakfast.

To Sell Power Farming

The big thought of the demonstration is to show farmers, dealers and distributers that power farming is successful and that it will lead to better farming, better farm conditions and lead to a minimum amount of labor trouble. It is the thought of the management to subordinate the feats of individual participants to the big idea of successful tractor farming.

A striking sight is the parking of over 250 Fordson tractors on two vacant lots on the main street by the Kansas distributer, the Watson Tractor Co. These have all been sold and are being held till after the demonstration for delivery.

Advance-Rumely has secured the No. 1 Oil Pull tractor which was built over ten years ago and will enter it in the demonstration. It has plowed over 7000 acres, threshed 750,000 bushels of grain and is still well able to pull five 14-in. bot toms without difficulty.

Engineers to Talk Tractor

WICHITA, KAN., July 14-Members of the Society of Automotive Engineers attending the tractor demonstration this week will hear a discussion of tractors, from the manufacturing, selling and operating standpoints, at dinner at the Hotel Lassen Thursday evening.

Possible speakers include Senator Capper of Kansas, or if he is unable to be present, John Fields of Oklahoma, a technically trained man known throughout the plains country as one of the principal boosters of the use of tractors for farm development. C. F. Kettering, past president of the S. A. E., is to act as toastmaster, if he is able to attend.

The scheduled program of addresses follows: Prof. L. W. Chase of the University of Nebraska, "Tractor Rating;" E. A. Johnston of the International Harvester Co., and a member of the S. A. E. council, "Work of the S. A. A. Tractor Division Standards Committee" (with special reference to belt speeds); E. J. Gittins of the J. I. Case Threshing Machine Co., "Tractor Problems of To-day;" L. C. Herring, Des Moines tractor distributer, "Maintenance and Related Problems from the Distributer's Standpoint." Two farm managers are to talk on tractors from the farmers' viewpoint.



Real Demonstration Is Being Done at Wichita— But Dent Parrett Had to Do It on Own Initiative

Demonstration Has No Real Rules, So Manufacturer Made Some of His Own and Is Running a Test That Will Produce Results Such as the "National" Demonstrations Fail to Give

By DAVID BEECROFT

WICHITA, KAN., July 14-To demonstrate officially the capacity of a tractor in the wheat belt in harvesting, threshing and plowing for another crop a Parrett tractor was started June 26 in a 127-acre field of winter wheat to harvest it, thresh it and plow the field. Harvesting and threshing have been completed and the plowing is nearly completed which, when completed, will mark the finish of one of the most comprehensive tractor tests of an official character that has taken place.

Official character was added by having it conducted by officials and observers from the Kansas State Agricultural College, Manhattan, Kan., as Prof. F. F. Frazier of civil engineering is in charge and he has three students who have acted as observers so that not a minute since the start on June 26 has not been under official scrutiny. Carefully prepared reports have been made concerning kerosene and oil required as well as water needed in radiator and also in the air washer.

Report Gives Real Data

The official report also shows the time required for each operation and the exact number of stops, the length of each in minutes and seconds, and the cause of each. In a word it is a most complete report and one that will furnish what the tractor industry so badly needs, namely, some official figures on performance in various lines of farm work.

It is fortunate that some makers have undertaken official tests of this character, as such tests furnish the only official figures on performance that will come from Wichita this week. The National Tractor Demonstration held here is entirely wanting in records. rules take no recognition of fuel consumption, speed of plowing in the tests, stops, etc. The tractors simply start plowing and when they get through they stop and the public is none the wiser as to the exact performance.

The Parrett test has been on what is known as the Royal Farm, nine miles out of Wichita, and the test has been on a fairly level field of 127 acres of winter wheat. The wheat was cut with an 8 ft. binder which required 52 hr. and 54 min. of actual working time. The binder was so coupled with the tractor as to permit of one man operating both, which was possible by extension tractor controls, the tractor occurred at night, especially

permitting the operator riding on the

The Parrett company developed this one-man system some months ago and in the test it worked entirely satisfactorily. While one man can do the work successfully it is a man's job. Kansas wheat this year has heavy straw which did not stand up as well as generally and the binder task was specially exacting.

The total harvesting time, including stops due to tractor and binder, was 71 hr. and 59 min. The kerosene used was 111 gal. per acre, or 2.68 gal. per hour. The rate of harvesting was 1.76 acres per hour. No attempt /as made to run the tractor night and day continuously as the test was not an engine non-stop test. It was a test similar to that any farmer would give.

The harvesting was carried on until midnight and sometimes later until the wheat was too damp to cut and work was put off until eight or nine in the morning. Threshing the wheat proved as good a tractor test as cutting and of equal importance, as nearly 50 per cent of the tractor's work is belt work such as threshing. Threshing was almost entirely a tractor job, as two extra Parretts were used to draw the wheat to the 23-in, threshing machine which the tractor under test operated.

The threshing test was not continuous. as rain interfered and a delay of three days was caused by this, and the tractor was stopped as the farmer would have to do. The gross threshing time practically equalled the harvesting or cutting time. It was 72 hr. and 10 min., but the net threshing time was 61 hr. and 12 min. The difference between gross and net was due to stops by the tractor because of the threshing machine.

The Kerosene Record

Threshing was done at the rate of 2.1 acres per hour. The kerosene used was 1.89 gal. per hour or approximately 9/10 gal. per hour more than needed for

Water added to the radiators amounted to 47 gal. and to the air washer 13 gal. Total tractor stops for threshing were 1 hr. 21 min., largely due to carbureter adjustments, repairing fan belt and attention to air washer. There was one carbureter adjustment of 13 min. and another of 7 min. Most of the trouble with that of the fan belt which also happened

In this part of the test the tractor is operating 24 hr. a day with four shifts of operators and four shifts of observers. The tractor is pulling three 14-in. Oliver plows working 61/2 to 7 in. deep. It is averaging slightly over 1 acre per hour. Thus far there have been few plowing stops due to the tractor.

One night the fan belt lacing broke, which resulted in damaging the return. water hose to the radiator and the delay totaled 1 hr. and 40 min. Another night the gearshift fingers in the gearset stuck and there was a delay of over one hour. There have been a few changes of spark plugs since the test was started.

Careful Preparation

Staging a test of this character extending over three weeks is not a small problem. The 127-acre tract was secured last May and Parrett assumed complete responsibility for the complete task. He provided the binder, the threshing machine and the help to do the threshing. It was a completely tractorized test. Over 22 men were needed in the threshing time. A farmhouse was rented, cots rented, cooks and other help secured and a complete working and living headquarters established. Spray baths were installed and an office for the university crew fitted up.

As a result Dent Parrett, president of the company, will have at the completion of the test the most complete and reliable mass of official information that has been accumulated in years. Not all of the National Tractor Demonstrators of the last 4 years would furnish him with what he has obtained.

There has been much good to the industry, but this is the first big attempt to provide that mass of data that the industry should have and that the entire merchandising organization of the country is in such need of.

A few more tests of this character would do much to put an end to the overselling and over-rating of tractors which has become too common. A hundred tests of this official character would do more substantial benefit to the industry than a hundred National demonstrations.

FACTS ON PERFORMANCE IS WHAT THE TRACTOR INDUSTRY NEEDS AND PARRETT IS FURNISHING THEM.



Jersey Truck Dealers Show Trucks at Meeting of Holmdel Farmers' Potato Club

They Rolled the Trucks Into an Orchard and Told the Interested Prospects All About What Trucks Will Do for the Farm— Results for the Dealers Were Good

RED BANK, N. J., July 12-Hundreds of farmers thronged the apple orchard on the farm of Theron Mc-Campbell, at Holmdel, a small inland town near here, to-day, and thereby set a precedent in the sale of motor trucks and tractors. The apple orchard had been converted into a temporary show room, and for hours the visitors, coming from all parts of the surrounding territory, listened with interest to the exposition of the advantages of automotive equipment upon the farm.

The day proved

That farmers are prepared and willing to buy trucks.

That nearly every farmer, regardless of the size of his holdings, is a prospect.

That truck and tractor demonstrations, however staged, may be counted upon to draw crowds, and

That the farm market for the motor truck is a growing field, and that the next few years will witness a motorization of the country districts where roads permit.

The meeting was the annual meeting of the Holmdel Potato Club, an organization of potato growers that is similar in purpose and aims to hundreds of farmers' organizations throughout the United States. The club was holding its third annual meeting but the truck demonstration was staged as a new feature just reaching some of its possibilities. It was arranged by dealers from various nearby centers, at the request of club officers, and was the only feature of the meeting except the scientific agricultural and potato talks made by several speak-

The hundreds of farmers, however, showed, by their interest and their intelligent questions and remarks, that they were awake to the future of automotive apparatus and that the point is being reached where the sale of trucks to them is up to individual dealers and

Holmdel is the center of the potato growing industry of East Central New Jersey. It is located in Monmouth County, a progressive, up-to-the-minute farming community, with graveled roads, comparatively small farms and numerous holdings. It is four miles from the nearest railroad. A large majority of its farmers already own passenger cars and many of them already have been converted to the truck for both short and long hauls. Its surrounding roads are thickly traveled with motor vehicles and its few stores have practically all taken to the sale of some automotive accessories. Such a district shows the result, in sales of cars and trucks, that may be expected in any district that has improved roads and wide-awake farmers.

The exhibition was arranged easily. McCambell, a former New York business man who has a large farm, offered the use of his grounds for the showing and the meeting. It was simple to arrange for speakers and to advertise the meeting, as all the county paper nearby were willing to carry attractive and lengthy notices of the demonstration. A small fee was charged each exhibiting dealer to pay for advertising and the few nominal expenses.

The Farmers Helped in Selling

The trucks and tractors—passenger cars were scarcely shown at all-were simply rolled on the grounds and placed under the trees. A few signs were set up, principally showing maker's and dealer's names and prices, and the exhibit was under way. With the trucks no demonstrations were made, except the sales talks of manufacturer and exhibitor. A few dealers were aided by special factory representatives, but most of the dozen exhibitors went it alone, apparently having had or needing little or no support from the manufacturer.

A plowing demonstration, however, was arranged for the tractors and throughout the afternoon they were busily turning into furrows the plots allotted to them. Each tractor went it alone, each drawing its following through the missionary work of the preceding

The trucks were exhibited both with and without bodies. The farmers themselves aided greatly in pushing their favorite make, groups of owners standing about and explaining to friends and neighbors the advantage of the particular make that they had bought or seen

"Every farmer at this meeting, with almost no exceptions, is a prospect," said J. H. Story, of the J. H. Story Truck Co., Asbury Park. "You can scarcely find a man who will not admit that he wants to own a 11/2- or 2-ton truck. The experiences of owners already have 'sold' the truck idea; our greatest problem is that of arranging payments or proving to the farmer that he can afford such a purchase."

The Monmouth County dealers declare

themselves in the position of finding that their farm missionary work is beginning to bear fruit, although at present it was estimated by several that not more than two per cent of the farm owners of the district now operate trucks. This missionary work has consisted of hard sales effort, with extensive newspaper advertising, the mailing of truck diterature and personal efforts. But it is now bearing fruit.

"The next two years will witness an unexpected and unbelievable demand for trucks," declared G. H. Allen, of the firm of Allen & Garrison, of Long Branch. "The demand will be heavy for trucks

in the farming communities."

Sell Models of All Sizes

The experiences of many of the dealers was that the smaller trucks was often the one first purchased for the farm, usually a light vehicle that could be purchased cheaply. Then, it was explained, the advantages of motive equipment became apparent and in a short time heavier and larger trucks were purchased. This phase was said to resemble greatly certain tendencies in the selling of passenger cars, that the prospect often bought a heavier and more costly car after his first purchase.

Dealers having several models maintained that their experiences in New Jersey were that all sizes could be sold. One dealer told of having just closed the sale of a 3½-ton model that would be used for the hauling of produce to the Newark market practically fifty miles distant. With such a truck, running at twelve miles an hour the farmer would be enabled to reach a market that would give him better prices and, by being on the spot, would permit him to sell more advantageously than if he depended upon a commission merchant to whom he shipped by rail. Other truck farmers, it was said, were using 1½- to 2-ton models for similar purposes.

The Holmdel demonstration drew creditable results in furthering the doctrine of "ship by truck," and brought about sales advertising that cannot fail to mean future contracts. Dealers found new prospects and farmers were compelled to see the possibilities for themselves of automotive apparatus.

This means farm motorization.

The idea is one that can be utilized in many ways. It, perhaps, could have been made more elaborate, with larger preparation and more skilful displays. But it did attract attention and point the way.

Many communities have such farm clubs. The possibilities are as great, if not greater, in each of these. The dealer and the sub-dealer who is prepared to take advantage of them and who is willing to spend the effort can affect sales through such demonstrations. Apparently a small affair and apparently of small opportunities, the Holmdel exhibition proved that such showings can mean great strides in farm sales.

These meetings are being held throughout the year. The wide-awake dealer and sub-dealer should utilize them.



News Letters From Trade Centers

ST. LOUIS

Plans Truck Exchange

ST. LOUIS, July 12—Although it is July weather, sales of cars have been good, being limited only by deliveries, which are an increasing source of worry to dealers. The truck business is also good, but farmers are too busy with their crops at this time to think of anything else.

A Rebuilt Truck Exchange was suggested to the Commercial Car Bureau of the St. Louis Automobile Manufacturers' and Dealers' Association by H. C. Bailey, manager of the St. Louis branch of the International Mack Corp. It would be managed by an expert to fix the valuation. Mr. Bailey is chairman of a committee, the other members being B. E. Purcell of the Dorris Motor Car Co.; Frank Martin, Martin Truck Co.; H. H. Hawke, Traffic Truck Corp.; and Henry Rottersman, Rottersman Auto & Truck Co. The plan suggested follows the lines of the Metropolitan Motor Truck Exchange of New York.

A picnic and outing for the motor car, automotive equipment and storage battery trade is now in prospect. The proposal has been made by President P. H. Brockman of the Automobile Manufacturers' and Dealers' Association, and is being considered by the entertainment committee, which is composed of Joseph A. Schlecht, Mound City Auto Co.; G. W. D. Donnelly, Supreme Motor Car Co., and F. W. A. Vesper, Vesper-Buick Co. Mr. Brockman suggests that the Motor Accessory Trades and Storage Battery Trade Associations join.

The Motor Accessory Trades Association and the Manufacturers' and Dealers' Association are co-operating in preventing congestion of Locust Street, the great motor car thoroughfare, by the parking of cars for periods longer than an hour.

The Missouri State Highway Commission has designated for Federal aid 58.85 miles of road in St. Louis County, which adjoins St. Louis and of which St. Louis is not a part. The estimated cost of these roads is \$1,400,000, and with the Federal government bearing half, the county will have \$2,300,000 of its \$3,000,000 bond issue, which has been sustained by the highest courts, for expenditure on other roads.

The J. I. Case Threshing Machine Co. has purchased the site of the old Mutual brewery at the southeast corner of Forest Park Boulevard and Boyle Avenue. The site has a frontage on Forest Park Boulevard of 400 ft. by a depth of

192 ft., extending south to the tracks of the Wabash Railway, which provides the property with switching facilities.

The St. Louis branch of the Ford

The St. Louis branch of the Ford Motor Co., at Forest Park Boulevard and Sarah Street, will soon be occupied by the company. It was used as a warehouse by the Government during the war. The building now occupied, 2309-11 Locust Street, will be used by the used-car department of the Overland Automobile Co. of St. Louis.

C. G. Bittel has resigned as president of the Bittel-Leftwich Tire Service Co., and Auguste Chouteau has succeeded him. Chouteau has been the financial backer of the concern. He was discharged from the army several months ago. B. O. Leftwich, one of the founders of the company, resigned Jan. 15. last. Fred. A. Kamp, also discharged from the army, was made vice-president, and C. B. Langhorn succeeded him as secretary-treasurer. The name of the company, which handles Lee tires, will be changed to the Lee Tire & Service Co.

E. S. Cole, for many years identified with the White Co. and later in St. Louis as manager for Missouri, Arkansas, and Oklahoma for the Little Giant Truck, has been appointed by general sales manager Harry H. Hawke of the Traffic Motor Truck Corp. as first Canadian sales representative direct from the St. Louis office. For 20 months Cole was instructor in the balloon service of the Missouri Aeronautical Society. R. A. Hillstrom, formerly of Chicago, is city sales manager.

The Dressel Collapsible Rim Corporation moved in this week to the building at 5156-8 Delmar Boulevard, which they have purchased.

Inglish Horckitz, formerly with the Ford Campbell Auto Supply Co., has been appointed district manager of the Ever Tight Piston Ring Co., with head-quarters in St. Louis. His territory includes the eastern half of the United States.

The Garrene-Sharp Tyre Co. has opened a factory branch of the Ten Broeck Tyre Co. of Louisville, Ky., at the northeast corner of 13th and Locust Streets, to sell Ten Broeck Tyres. W. L. Huggins is manager of the branch.

Henry H. Kraleman has retired from the Used Car Exchange Co., of which he was president, and is now in charge of the O'Fallon Park Motor Car Co., 4005 Florissant Avenue. Marvin Hoffman is associated with him as general manager. They will handle accessories, tires, etc., and will be agents for the Chevrolet.

A. E. Bradley has been appointed district manager for the DeLuxe Automobile Co., Oldsmobile distributer, covering Central Illinois. He formerly was with the St. Louis office of the Standard Oil.

PHILADELPHIA

Boosts Motor Trucks

PHILADELPHIA, July 15—Two new schemes for using motor trucks have been developed in the Philadelphia district. One is the establishment of several passenger carrying lines to shore points, suggested by the Railroad Administration's discontinuance of holiday excursion rates. The other is a decision of the Post Office Department to open within the next four weeks a parcel post motor route between Philadelphia and Allentown, covering the Perkiomen Valley, in the interest of the farmers of that section who are eager to sell their produce in this city.

The matter of opening another route, from Boyerstown to Quakertown through the Upper Perkiomen Valley, soon will be considered.

Motor trucks are acting as jitney lines to Atlantic City from Philadelphia and other nearby points.

Both the passenger truck and parcel post projects have bettered local dealers truck sales prospects.

Ralph W. Cooke has been appointed sales and general manager of the Automobile Sales Corp., distributer of Cadillac cars. He succeeds C. R. Cunliffe, whose resignation to become general manager of the new Cadillac branch in Chicago was announced by Motor World in the July 9 issue. Mr. Cooke was sales manager of the Automobile Sales Corp. from 1908 until 1912. Lately he was captain in the United States motor transport service in France.

Herbert T. Hare will head the sales promotion and advertising department of the Cadillac agency here.

Two new appointments have just been made in the F. O. B. Manufacturing Co. of Philadelphia, makers of the F. O. B. combination auto lock. Paul Jones, Jr., has been appointed general sales manager and C. D. Hunter has been appointed city sales manager. They will have their headquarters at the F. O. B. Co.'s service station.

J. H. McCullough & Sons, beginning July 14, will have experts conduct a demonstration of oxy-acetylene welding and carbon burning at its North Broad Street store, as well as a demonstration of garage equipment.

The Star Automobile Exchange, dealing in new and used cars and equipment, has opened for business at Chestnut and 30th Streets, near the viaduct of the Baltimore & Ohio Railroad.



NEW ORLEANS Plans Spring Show

NEW ORLEANS, LA., July 12—Dealers of this city are beginning to discuss plans for a motor show next spring. The Automobile Dealers' Association of New Orleans, of which L. C. Glenny is president, is taking the lead in the project. The only drawback to this year's show was lack of space in the Athenaeum, and difficulty of getting cars into the showroom. This year, doubtless a larger building will be obtained, where virtually all the dealers can exhibit, lack of space this spring having limited the number to 14.

Efforts are still being made by some of the dealers to have a used-car show this fall, but so far nothing definite has come of the plan. It is estimated that at least 50 dealers can be brought together in the spring exhibition.

Large delegations are promised from a number of towns in Louisiana and Mississippi for the convention which is to organize the Bi-State Auto Dealers' Association, July 10-11. L. C. Glenny, president of the New Orleans Auto Dealers' Association, which is fostering the project, has announced the following committees of dealers for the convention: Finance, L. M. Wolf, R. C. Churchill and H. A. Testard; Program, Hamilton Barton. Percival Stern and A. H. Borden: Entertainment, W. P. Parkhouse, Gus D. Revol and L. R. McMillan. Plans for the convention are completed. A. H. Borden, vice-president of the Shuler Auto Equipment Co., will preside over the preliminary session.

The Lyons-Barton Motor Co., sales agent for Pierce-Arrow cars and trucks, is letting contracts for the construction of a 2-story brick building at St. Charles Avenue and Terpsichore Street, to cost \$50,000. Long term lease has been taken on the property, and work will be commenced on the building this month. The company expects to move in before the winter holidays. Showrooms will occupy all the space of the first floor, while the repair and equipment department will be housed on the second floor.

Contracts for another Louisiana link in the Jefferson Highway were let by State Highway Engineer Duncan Buie, just before he left on the sociability run to Winnipeg. These cover 20.23 miles, from Colfax to Alexandria, and from Colfax to Natchitoches. R. M. Perry of Montgomery, Ala., obtained the contracts at \$215,318.

A. A. Crumley, special agent of the Chalmers-Maxwell Sales Corp. is here assisting in the organization of the Automotive Sales Co., the new firm to distribute Chalmers and Maxwell cars in southern Louisiana.

It was said that the Maxwell-Chalmers factories will produce 90,000 Maxwell cars, 20,000 Chalmers and 15,000 Maxwell trucks this year.

The company recently purchased a

3-story building and is having it remodeled. J. H. King, also of the Chalmers-Maxwell Corp., is here, installing the parts department for the Automotive Sales Co. and will remain until the stockroom has been thoroughly systematized.

There has been no let-up in demand for cars since the April motor show. All the factories are behind in production, and apparently there are not enough automobiles to supply the demand.

There is a movement of automobile dealers toward the uptown section of the city. Julia Street, between Camp and St. Charles, has bee repaved and improved, since three automobile dealers moved there. The Capital City Auto Co. selected Julia Street between St. Charles and Carondelet for its new home.

MILWAUKEE

Dealers Take Aircraft

MILWAUKEE, WIS., July 14—The shortage of cars here for more than two months did not become so sharply apparent as during the past week. This probably was accentuated by the credence which had been given rumors circulated for many weeks that car prices would undergo a material reduction on July 1. Neither the car supply showed improvement, nor did prices drop, but the clamor for cars continues.

The entry of motor car distributers and dealers into the aircraft field was accentuated during the week by the organization of the L. D. Frint Aeronautical Co., to manufacture, buy, sell and deal in aircraft, parts, etc. At the head of the new concern is Leslie D. Frint, president of the L. D. Frint Motor Car Co., distributer of the Oldsmobile in Wisconsin and upper Michigan. Henry E. Griffin, manager of the Frint motor concern, and H. R. Overly appear as incorporators.

W. H. Hathaway, 607 Jackson Street, Oshkosh, Wis., for seven years factory representative of the Cadillac in the Wisconsin territory, has organized the Hathaway-Buick Co. of Oshkosh, and becomes Buick sub-distributer for central Wisconsin, including the Fox River valley. The headquarters of the new company are in the Neville Block, 25-27 Church Street, Oshkosh.

Fischer & Roller, Beaver Dam, Wis., Overland dealers, have succeeded August Fischer & Son. The firm has also been appointed Curtiss airplane dealer; George W. Browne, state distributer of the Overland, being general representative of the Curtiss in the Middle West.

Albert Thiel and Jorn Feutz have purchased the Weber Bros. garage at Schleisingerville, Wis., and will continue the business at The Square Deal Garage Edwin Weber remains with the firm, but George Weber retires because of ill health.

KANSAS CITY

Plans Tractor Show

KANSAS CITY, MO., July 12—At a recent meeting at the Hotel Muehlbach, the Kansas City Tractor Club completed preliminary plans for the 1920 tractor show, which will be the fifth national tractor show held in this country. The exact date has not been decided upon, but it will probably be some time in January. Guy H. Hall, secretary and manager of the annual tractor shows, stated that old exhibitors had reserved space for the next year's show and that a large number of reservations from new concerns had already been received.

The fourth annual tractor show held in January last had approximately 450 exhibitors occupying 140,000 sq. ft. of floor space with a total attendance of 180,000.

George Lewis and J. J. Weildran, both formerly with the Pand O Co., have gone with the J. I. Case Co., handlers of the Wallis tractor. Mr. Lewis will travel north central Missouri and Mr. Weildran the Oklahoma territory.

H. M. Harrelson, who has been in business here for ten years, is now district manager of the Hawkeye Tire Co. branch. Mr. Harrelson's territory covers Missouri and Kansas. For several years Mr. Harrelson was connected with the White Truck Co. and later owner and manager of the Used Car Exchange in this city.

C. L. Durham, formerly with the Watson-Weldon-Durham Motor Co., at Salina, Kan., is president, D. H. Durham secretary and treasurer, and Evan Pough, vice-president. The company plans to establish a manufacturing plant at Akron, Ohio, or in a locality adjacent to the rubber market.

A new company, to make bodies, tops, and curtains is known as the Hart-Lustig Manufacturing Co. George Hart, president, was at one time with the Holken-Elberg Manufacturing Co.

Hart & Lustig have 20,000 sq. ft. of floor space in their 4-story building. Louis Lustig is vice-president and Norton Lustig, Jr., is secretary and treasurer.

E. L. Howard, formerly of the John Deere Plow Co. at Oklahoma City, has been made sales manager of the G. T. O'Malley Tractor Sales Co., distributer for the Ford tractors in Missouri.

E. F. Schiele, formerly with the Cleveland Tractor Co., has taken over the Wallis tractors for southern Colorado.

Charles Harrington, who has been local manager of the Times Square Auto Supply Co. for nearly two years, resigned to enter business for himself as the Hawkeye Auto Supply Co., with headquarters at Des Moines. In addition to Des Moines there will be stores at Sioux City, Minneapolis, Cedar Falls, Omaha, and Wichita. D. V. A. Smith, now manager of the Tulsa branch of the Times Square organization, will come to Kansas City to take charge.



NEW YORK Dealers' Club Grows

NEW YORK, July 14—Factory branch managers who, by reason of this city's leading position as an automobile trading center, constitute about 50 per cent of the roster of dealers, rate themselves dealers first when it comes to organization, as shown by recent activities of the Automobile Dealers' Association. Headed by Charles M. Brown, Oakland manager, and with both factory representatives and independent operators on its board of directors, the association is going strong, showing a gain of seventy-two members as a result of a directors' meeting last week.

The new membership policy instituted with the advent of Harry T. Gardner as secretary, is bringing in not only dealers' firms as full members, but various classes of workers and men in auxiliary lines on the house list, while the nonresident membership roster has been lengthened with names from points as far west as Detroit. In addition to the applications acted upon, a number of others are in the works, showing a healthy growth of the organization without a campaign of any sort. Directors' meetings have reached the stage of 100 per cent attendance, and the crowd in the clubrooms for luncheon and the midday chat or relaxation in the game rooms is getting bigger every day.

One of the new secretary's innovations is a weekly news letter, in which the members are informed of happenings, local, state and national, in the automobile world. Members are kept in touch with legislative proposals and accomplishments, and with city ordinances affecting their business.

The association rooms already are agog with talk of the approaching New York show, set for January under the auspices of the National Automobile Chamber of Commerce. The members look for an unprecedented number of new designs and new cars, as a result of the incentive of prosperous after-the-war business

Talk of the annual outing, to be held in September, is nearing the stage of "starting something," but the committee is yet to be named.

Opinion is about evenly divided in the rooms over the chances of metropolitan dealers catching up on passenger car orders by Oct. 1. Some agencies declare shipments from the factories already are beginning to show a gain on the demand, which naturally falls off when a large percentage of the car buying public is out of town vacationing. They look for a chance to bring deliveries up to orders about the end of September, but declare the lesson of the present season has taught dealers to put in a winter stock of cars to avoid being caught short on supply next spring. Others see no improvement in the situation and insist that cold weather stocking up will be impossible, as their factories, now one to four months behind on orders, will be able to do no more than get even with the board by the first of the year, when the show will start an avalanche of buving. All hands agree that the season is prosperous, but what hurts is the loss of some of the prosperity through enforced refunds of deposits by customers who refuse to wait months for cars.

Charles E. Reiss, former Hupmobile distributer, has re-entered the local field after a stay in the South, this time handling the Columbia Six for New York, New Jersey, Connecticut and eastern Pennsylvania. The Charles E. Reiss Co. has located at 1737 Broadway. Associated with the head of the company are Byron H. Reiss, his son, who will manage the retail end, while George L. Reiss, another son, and J. Herbert Carpenter, Jr., returned soldiers, will handle retail sales in the metropolitan district under the firm name of Reiss & Carpenter. Until a salesroom can be obtained they are doing business, with a car on display, in the Forty-fourth Street lobby of the Hotel Astor. They will establish a service station.

The R. E. Taylor Corp., eastern distributer of the Signal truck, has opened offices and salesrooms at Seventh Avenue and Thirty-seventh Street, the center of the automobile trade years ago before the trend uptown with Columbus Circle as the "hub."



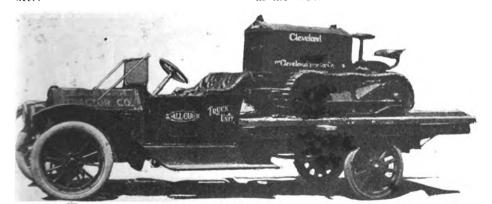
BOSTON, July 12-Motor dealers throughout New England are beginning to see signs of 1920 production overlapping on the heels of the 1919 output. And they wonder if the 1920 cars are going to come along at a higher price. President Edward S. Jordan, of the

President Edward S. Jordan, of the Jordan Motor Car Co., spent last week at the Atlantic seashore with F. A. Hinchcliffe, the Boston dealer. Mr. Jordan announced that a Jordan agency had been placed at Springfield, Mass., with F. W. Wright and Eben Luther on Worthington Street, for western Massachusetts. They also have Acason trucks for New England and eastern Canada.

M. S. Beebe, general sales manager of the Northway Motors Corp., with headquarters at Boston, is planning to open branches in different New England cities for these trucks which are made at Natick, now that production is coming through. He has secured an option upon property at Springfield, Mass., for a sales and service station to cover western Massachusetts.

The Massachusetta Motors, Inc., of Boston, gave a complimentary dinner last week to officials and guests from the Worcester, Providence, Springfield and Manchester branches. Arthur P. Young, president of the corporation made a welcoming address, and other talks were delivered by Amos J. Shorey of the New England Velie Co., and H. S. Beale, resident manager of the Worcester branch.

The Amoredcord Tire Co. has leased a salesroom on Boylston Street. The Standard Auto Top Co., 66 Berkeley Street, has taken the agency for the California Auto Tops for eastern Massachusetts with headquarters in Boston. Chester I. Campbell, secretary of the Boston Automobile Dealers' Association, and manager of the big Boston shows, is one of the officials of a new company organized to control the Savold process for repairing tires in Boston. The company will open in a few days.



The above illustration shows the manner in which the Northern Iowa Tractor Co.. Mason City, Ia., delivers the Cletrac tractor to its customers. This company is really a department of the Northern Iowa Motor Co., which recently added tractors to its line of motor cars. An entirely separate organization was built up for the new business, as it was not considered possible to handle properly the two lines with one set of salesmen

CHARLOTTE

Adds New Dealers

CHARLOTTE, N. C., July 11—A convention of Firestone Tire & Rubber Co. dealers of North and South Carolina opened here to-day with a conference between the dealers and salesmen and special representatives of the company in the morning. A dinner will be given to-night.

The purpose of the convention, as explained by Dan F. White, district manager of the southern territory, was to discuss conditions affecting the tire busi-



ness at present. Among the Firestone representatives here in addition to Mr. White are W. D. Zahrt, Atlanta, district credit manager; R. L. Marpham, Akron, Ohio, manager of the truck tire sales department, and S. H. Crome, manager of the Jacksonville agency. The convention will last through tomorrow.

The annual convention of the North Carolina Good Roads Association will be held here at Wrightsville Beach, August 13-15. At the same time there will be held the annual meeting of the North Carolina Automobile Association.

People in this section are interested at present in a proposed Wilmington-Charlotte-Asheville highway, connecting the extreme eastern part of the state with the western.

Speakers of national importance are being invited to the convention.

The \$1,000,000 road bond issue for the building of good roads in Mechlenburg county, of which Charlotte is the county seat, will soon be put before the voters.

The Southern Motors Corp., capitalized at \$50,000, has been formed to conduct a retail and wholesale car and truck business. It will distribute the Diamond T truck, Peerless and Columbia cars. It will be located at the corner of Fourth and Poplar Streets, which has a floor space of 12,000 sq. ft.

C. S. Alston is president and general manager of the organization, and Geo. H. Dupee, formerly of New York City and for a long time special factory representative of the Diamond T Truck Co., is secretary and sales manager.

American Motors Corp., handling the Paige car and truck, the Vim truck and the Moore "30" car; the Motor Accessories Co., tire and accessory dealers; the Automotive Electric Service Co., distributer of "Exide" batteries over 17 counties; and the Charlotte Tire and Rubber Co., dealers in Keystone and several other makes of tires, have all recently become established here.

Work has been started on an extensive enlargement of the present home of the White Motor Co., the increase in size to be 30 ft. by 82 ft.

BI-STATE DEALERS ASSOCIATION FORMED

Automobile Sales Houses of Louisiana and Mississippi Combine Forces

NEW ORLEANS, LA., July 12—George D. Wray, of Shreveport, La., was elected president of the newly organized Louisiana-Mississippi Automotive Trade Association, Friday. M. R. Adams of Meridian, Miss., was named 1st vice-president; Ginder Abbott of New Orleans, 2nd vice-president; T. L. Huber of Lake Charles, 3rd vice-president, and A. H. Borden of New Orleans, 4th vice-president.

Jackson, Miss., was chosen as the next convention city.

The selection of a secretary-manager for the association was left to the board of directors, who are: J. K. Dunn, Columbia, Miss.; R. C. Hines, Jackson, Miss.; W. A. Chichester, Jackson, Miss.; E. C. Kimbrough, Greenwood, Miss.; W. H. Daniels, Gulfport, Miss.; J. H. Hooks, Clarksdale, Miss.; L. E. Barre, Lexington, Miss.; C. C. Strahan, Hattiesburg, Miss.; L. C. Glenny, Percy Stern, J. D. Cathey, New Orleans; Reuben H. Brown, Jeannette; Dr. Wilkins Jennings, W. K. Henderson, Shreveport; Fred Perkins and Philip Hirsch.

More than 500 dealers were present, with nearly as many more interested in the industry when the organization was effected. About 200 other dealers from the two states, who could not attend the meeting, sent in applications for membership.

The convention was held in the Grune-wald Hotel, and A. H. Borden, vice-president of the Shuler Auto Supply Co. and secretary of the New Orleans Auto Dealers' Association, presided from 10 a. m. Thursday until organization had been made and officers elected. Mayor Martin Behrman had been asked to deliver the address of welcome to the delegates, but, owing to his absence on the Jefferson Highway sociability run, sent one of the

commission council as a substitute. L. C. Glenny, president of the New Orleans Dealers' Association, welcomed the delegates. Percy Stern spoke for the New Orleans equipment men.

The morning session Thursday was taken up with a number of addresses, and the appointment of committees on resolutions, organization and nominations, as well as another committee on constitution and by-laws. These committees reported at 10 a. m. Friday, and organization was completed by noon Friday. That day was devoted, aside from organization, to speeches and discussion of all possible angles of the automotive industry in the South. More than 1000 persons heard these addresses.

One of the subjects most strongly stressed at the meeting which organized the Louisiana-Mississippi auto dealers into a bi-state association, was the necessity for a federal law to halt motor car thefts and to punish the thieves severely. The subject was introduced by L. C. Glenny, of the Bernstein Glenny Motors Co., and president of the New Orleans Auto Dealers' Association, and was at once taken up by the hundreds of dealers present, who decided to make the passage of such a law one of the objectives of their new organization. It was stated that the Detroit Automobile Dealers' Association is sending out more than 5000 letters to dealers throughout the country, urging them to use every influence for the enactment of this federal legislation.

\$1,000 Will Buy a Titan

CHICAGO, July 11—The International Harvester Co. has reduced the price of the Titan 12-20 tractor from \$1,225 to \$1,000, effective this week. No change in dealer discount accompanies the reduction.

The Titan has been improved in several particulars, although none of them are fundamental. A safety shield has been put on the pulley so that belts can be slipped on while the pulley is in motion without danger to the operator. The fenders have been lengthened and widened and an operator's platform has been added.



Here are the dealers of Louisiana and Mississippi at the meeting in New Orleans

FORDS BUY MINORITY STOCK IN COMPANY

Get Free Rein, by \$100,000,-000 Purchase, to Carry out Expansion

DETROIT, July 11—Concentration of the stock holdings of the Ford Motor Co., in the Ford family, with the exception of 2180 shares held by Mayor James Couzens of Detroit, was consummated to-day in a transaction involving approximately \$75,000,000.

As a result of the deal Henry Ford, his son, Edsel Ford, president of the company, and Couzens, original Ford sales and office manager, become sole owners of the concern, leaving Mr. Ford free to carry out the expansion projects which were curtailed when the minority stockholders, insisting upon distribution of more than \$19,000,000 in dividends, carried their point into court and prevented by legal action investment of these earnings in development work.

\$13,000 Per Share Paid

Details of the sale were made public by Frank L. Klingensmith, vice-president of the Ford company. Edsel Ford, previous to the sale, held 300 shares of Ford stock. He now owns 6420 shares. Therewere 8300 shares held by outside interests. Henry Ford owned 11,000 shares. Approximately \$13,000 a sharewas paid the minority stockholders for their holdings.

The shares held by the minority stockholders and the approximate price paid were as follows:

Horace H. Rackman, 1,000 shares	\$12,500,000
John Dodge, 1,000 shares	12.500.000
Horace Dodge, 1,000 shares	12.500.000
John Anderson, 1,000 shares	12,500,000
David Grey, 525 shares	6 562,500
Paul Grey, 525 shares	
Philip Grey, 525 shares	
Alice Kales, 525 shares	6,562,500
Mrs. A. P. Hauss, 20 shares	250,000

Added to the price paid for the stock it is estimated that close to \$17,000,000 will go to the government in excess profit taxes.

No New Company Now to Manufacture Cheaper Ford

The project of Henry Ford to form a new company to manufacture a car to sell at less than \$250, ends with the acquisition of virtually all of the minority stock of the Ford Motor Co. While wintering in Los Angeles Ford last March astonished the automobile world when he announced a plan to place such a car on the market.

Edsel B. Ford stated, however, that the designing of the new car will be continued and that if it was decided to put it in production, it would be manufactured in the present Ford plant and placed on sale as a new Ford model.

The deal was financed through Stuart W. Webb of Bond & Goodwin, New York, and F. W. Holmes of the Old Colony Trust Co., Boston. Henry Ford, though owning the controlling interest in the company, took no part in the negotiations. There will be no change in the personnel of the official and department heads.

Co-operative Plan Announced

Through the reorganization plan it is the ultimate desire to make the new company a co-operative one. That is, the employees would technically succeed the minority stockholders of the old Ford Co., as stockholders in the new corporation. This plan was made known by Henry Ford who said:

"By making it a co-operative company we propose to make it possible in the future to divide the melons that have in the past been cut with the minority stockholders, with our workers."

Announcement of the purchase and the

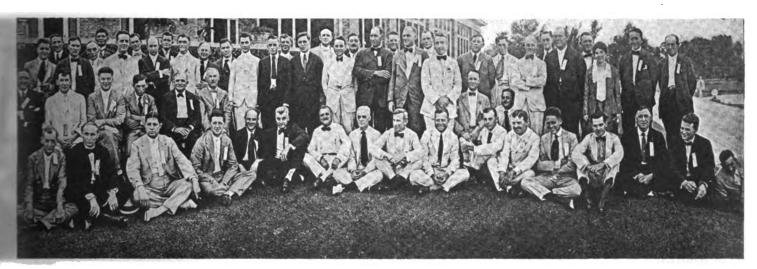
future plans of the organization finely settled a problem that has bothered the business world since Henry Ford's retirement from the presidency and his later announcement of his proposal to build a new, cheap automobile which would undersell the present Ford product. The most persistent rumor during the last months was that the General Motors Corp. had an option on the Ford stock.

Concentration of control of the company was precipitated by the desire of the Fords to be free to conduct the affairs of the company without the interference of minority stockholders. The recent suit of John F. and Horace E. Dodge to compel a distribution of profits which Mr. Ford had intended to use for plant expansion was an evidence that this interference was of no small moment. Last February, after a lengthy suit, the Michigan Supreme Court ordered Henry Ford to pay stockholders \$19,275,385 in dividends which had been held back as accumulated surplus for expansion purposes. As the result of this ruling Ford found it practically impossible to carry out the vast improvements which he planned on the River Rouge, where his blast furnaces and shipbuilding plants are located. Here he had intended to center an industry with feed branches all over the United States and extending into foreign lands.

3,200,000 Fords Sold

The first Ford car was sold in July, 1903. It was a two-cylinder, opposed type engine installed in a light runabout. Production on a quantity basis was then entered into, 650 cars being assembled and sold that summer, an unheard-of record in production in the motor-car industry as it then existed.

The Ford Co., according to its annual statement of July 31, 1918, had total assets of \$203,749,460. The company has twenty-eight branch factories in the United States and three factories and seven branch houses in Canada. Sales agencies are located in all of the principal cities of the world. Approximately 3,200,000 Ford cars have been produced since organization of the company. Production is now 3200 cars daily.



week for the formation of the Louisiana-Mississippi Automobile Trade Association

CHANGES in the Trade

E. A. Wilson has been appointed manager of the Fisk Rubber Co., wholesale agency, at Atlantic, Ia.

Waiter Baddick, Santa Anna, Cal., is the new secretary for the Orange County Dealers' Association.

Herbert H. Mack has been appointed manager of the Topeka branch of the Neals Motor Co., Nash distributer.

- J. E. Harrington, formerly manager of the Kansas City branch of the Times Square Auto Supply Co., has resigned. He will open an accessory shop here.
- J. H. Marston has resigned as service manager of the Ford Agency. Boone, Ia., and has become associated with A. Larson, under the firm name of Marston & Larson, to handle Dodge cars in this territory.
- H. M. Giliespie, formerly with the Republic Motor Truck Co., Alma, Mich., has been appointed sales manager of the McDonough Republic Truck Co., Norfolk, Va.
- H. O. Stachling, formerly service manager of the Sterling Motor Truck Co., Milwaukee. has been placed in charge of Sterling Agency in Philadelphia, which has been made a direct factory branch.

Raymond Hawley has been appointed manager of sales and advertising of the Guaranty Motors Co., Cambridge, Mass.

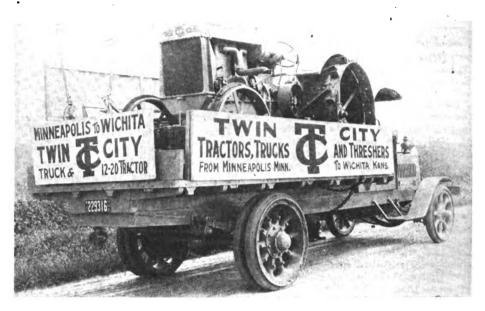
- F. A. Bixby, for four years Western supervisor for the Briscoe Motor Corp., Jackson, has taken a distributers' contract for the company for Nebraska, with headquarters at Omaha.
- H. E. Henry, formerly sales manager of the Fulfio Pump Co., Blanchester, Ohio, has been appointed sales manager of the Michigan Machine Co., Detroit.

New York Stock Exchange Closing Quotations July 12, 1919

Fisher Body, com..... 831/2

Bid Asked

Fisher Body, com	•
Fisher Body, pfd100	102
Goodrich, B. F., Co., com 861/2	8634
Goodrich, B. F., Co., pfd1031/4	1041/2
Kelly-Springfield Tire. com1361/4	136%
Kelly-Springfield, pfd	_
Kelsey Wheel, com 55	57
Kelsey Wheel, pfd100	101
Lee Rubber & Tire 37%	38
Stewart-Warner Speedometer	
Stromberg Carburetor	
U. S. Rubber, com134	135
U. S. Rubber, pfd119	1191/4
	sked
Chandler Motor Car258	260
General Motors, com235	2351/2
General Motors, pfd 92	923/4
General Motors, pfd 92	92¾ 90 53
General Motors, pfd	92¾ 90 53 79¾
General Motors, pfd. 92 General Motors, deb. 89% Maxwell Motor, com. 52½	92¾ 90 53
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79	92¾ 90 53 79¾
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40 ½	92% 90 53 79% 41
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40 ¼ Pierce-Arrow, com. 62 ¼	92 % 90 53 79 % 41 63
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40 ½ Pierce-Arrow, com. 62 ½ Pierce-Arrow, pfd. —	92 ¾ 90 53 79 ¾ 41 63
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40½ Pierce-Arrow, com. 62½ Pierce-Arrow, pfd. — Saxon Motor Car. 16½	92¾ 90 53 79¾ 41 63 —
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40½ Pierce-Arrow, com. 62½ Pierce-Arrow, pfd. — Saxon Motor Car. 16½ Studebaker, com. 109 %	92¾ 90 53 79¾ 41 63 — 17
General Motors, pfd. 92 General Motors, deb. 89 % Maxwell Motor, com. 52 ½ Maxwell Motor, 1st pfd. 79 Maxwell Motor, 2d pfd. 40 ¼ Pierce-Arrow, com. 62 ¼ Pierce-Arrow, pfd. — Saxon Motor Car. 16 ½ Studebaker, com. 109 ¾ Studebaker, pfd. 101	92¾ 90 53 79¾ 41 63 — 17 110
General Motors, pfd. 92	92¾ 90 53 79¾ 41 63 — 17 110 102 97½
General Motors, pfd. 92 General Motors, deb 89 % Maxwell Motor, com 52 ½ Maxwell Motor, com 52 ½ Maxwell Motor, 1st pfd 79 Maxwell Motor, 2d pfd 40 ¼ Pierce-Arrow, com 62 ¼ Pierce-Arrow, pfd	92 %, 90 53 79 %, 41 63 — 17 110 102 97 1/2 71



The big Twin City truck shown above has just completed a demonstration run from the home factory at Minneapolis to the branch at Wichita, Kan., carrying, throughout its long journey, one of the Twin City "12-20" tractors made by that company, the Minneapolis Steel & Machinery Company. The run was one feature of the company's campaign in favor of "ship by truck" and was not undertaken with any ideas of speed. Stops were made along the route and the tractor dismounted and demonstrated. It is planned to make similar trips from the factory to each branch.

MODEL 25 WINTON A SMALLER SIX

New 33 H.P. Chassis Comes with 13 Different Body Styles

CLEVELAND, July 11-In addition to its Models 24, 48 hp., the Winton Co. is bringing out a smaller six known as Model 25 and rated at 33 hp. The new product will be made in 13 different body styles. It will have a detachable head, 6-cylinder engine with the cylinders in pairs, the engine dimensions being 3% by 5½ in. The engine is so designed that the piston and connecting rods are removable through the top of the cylinder. It has a 214 in. crankshaft with 130,000 lb. per sq. in. material mounted on four bearings. This is a counter-weighed shaft.

The engine is oiled by pressure feed to the main and crankpin bearings and the camshaft bearings with a lead to the accessory driveshaft bearings. The chassis parts are also lubricated by oil in place of grease.

Vacuum feed is used in the gasoline system, and the inlet manifold is provided with a jacket for exhaust gases to assist vaporization. A valve is placed in the passage leading from the exhaust manifold to the jacket on the inlet manifold, controlling the temperature of the jacket.

The Bijur two-nut starting and lighting system is employed, and a Bosch magneto. The clutch is a dry plate, multiple disc, and the gearset provides four forward speeds. The chassis is mounted on semi-elliptic springs and the frame is channel section without offset in the side rails. A torsion rod is fitted, this being a nickel steel, V-shaped structure for taking accelerating and braking torque. The axles are Timken, with Timken roller bearings throughout. Timken bearings are also employed in the wheels. The tires are cord, straight sides, 35 by 5 in., mounted on Firestone rims.

Among the fittings of this car is the combined electric lighting and ignition switch with Yale lock, a Warner 100,000, mile speedometer, Waltham clock, with a small tool compartment under the cowl.

The wheelbase is 132 in. and the clearance 9½ in. The bodies provided and their prices are in accordance with the following list:

Touring Cars

4-passenger, Sport	3,600
5-passenger	3,600
6-passenger	
7-passenger	3,600
Roadsters	
2-passenger	3,600
3-passenger	3,600
Closed Cars	
Victoria, 4-passenger	4,500
Sedan, 4-passenger, Sport	4,700
Sedan, 4-passenger, 4-door	4,800
Limousine, French, Town car	4,550
Limousine, Three-quarter, 7-	
passenger	4,550
Limousine, 4-door, 7-passenger	4,800
Limousine - Landaulet, 7-pas-	
senger	4,800
Chassis only	3,265

STEVENS-DURYEA AGAIN TO MANUFACTURE CARS

Company Reorganized and Takes Over Former Car Factory

CHICOPEE FALLS, MASS., July 15—The Stevens-Duryea Co., reorganized with Ray S. Deering as president, and Thomas L. Cowles as chief engineer, will begin shortly manufacture of a new type, high-grade car bearing the company's name. The concern has taken the old Stevens-Duryea factory, utilized during the war by he Westinghouse Electric Co.

While the company's policies have not been fully formulated, the managing organization has been completed and a definite announcement of the type of car to be produced will be made shortly.

William Remington, who handled parts of the old Stevens-Duryea car, will be consulting engineer. Other officers, aside from Deering and Cowles, are: Vice-president, Earl Palmer; secretary and treasurer, M. R. Leathers; clerk, William S. Fish.

As indicative of the popularity and endurance of the old Stevens-Duryea car, dealers in parts report a considerable demand for their products.

Utilitor Combines Tractor and Power

INDIANAPOLIS, IND., July 12—An agricultural machine, combining the functions of a small tractor and a mobile power plant, known as the Utilitor, has been made by the Midwest Engine Co. The Utilitor is designed to do one-horse work on a farm. It will plow, haul, cultivate, handle a harrow or a mower or any other one-horse tillage machine. It can also be used on a belt for all light farm power driven machinery.

Talk of Glidden Tour

NEW YORK, July 14—A cross-continent run is being considered for the revived Glidden tour, proposed for the fall of 1920. A committee consisting of Richard Kennerdell, chairman of the A. A. A. Contest Board, Al Reeves, general manager of the N. A. C. C., and S. A. Miles, N. A. C. C. show manager, has been named to consider the proposal.

Pennsylvania Rubber Co. Consolidates With Beers Bros.

OIL CITY, PA., July 12—The Pennsylvania Rubber & Supply Co., Cleveland, has consolidated with Beers Bros. Co. of this city, distributer of Pennsylvania tires. The concern here will be known as the Beers Bros. Branch, and will have the same personnel as heretofore with W. S. Van Horn, manager. The officers of the consolidated company are: President, J. C. Hipp, Cleveland; 1st vice-president,

W. R. Jeavons, Cleveland; 2nd vice-president, A. I. Fishbaugh, Columbus, Ohio; treasurer and general manager, H. G. Smith, Cleveland; secretary E. R. Seager, Cleveland. The board of directors consists of P. C. Beers, Oil City; W. H. Farr, E. W. Farr, J. J. Fenner, T. J. Smith, all of Cleveland, in addition to the officers.

Post Tractor in Production

CLEVELAND, July 11—The Post Tractor Co. expects to get into its new factory within the next 30 days and will immediately go into limited production. The company is arranging to build about five machines a day with an increase as fast as production facilities will allow.

TAX RULING ON PARTS AND ACCESSORIES

WASHINGTON, July 15—Commissioner of Internal Revenue Roper has advised the automobile trade that parts or accessories purchased prior to Feb. 25 are taxable when sold in connection with a motor truck or other motor vehicle, as provided in the revenue act of 1918. The tax does not apply to such articles purchased by the dealer from a manufacturer before the same date and sold on or after Feb. 25 separately from the sale of an automobile.

OVERLAND PRODUCTION SPEEDING SINCE STRIKE

TOLEDO, July 11—The Willys-Overland Co. is producing 200 cars daily, which is approximately 40 per cent of the production it had reached just previous to the strike 8 weeks ago. There are now nearly 8000 men back at work in the Toledo plant where 12,500 were laboring the day the strike was called. There has been practically no trouble since the company opened under the protection of the United States District Court.

The coming week will also see the new Overland model 4 on the market.

The company planned to manufacture 180,000 cars this year but owing to the strike, production will probably not exceed 150,000.

Stanwood Rubber Equips Plant

NEWARK, N. J., July 11-The Stanwood Rubber Co., recently incorporated, will be in production of tires and tubes by September. Its steel and concrete plant has a floor space of 68,000 sq. ft. and occupies a 7-acre site. Equipment is being installed. Officers of the company are: President, C. E. Barker, vicepresident and treasurer of the Mutual Tire & Rubber Co.; vice-president, Ed. Hutchins, president of the Chippewa Rubber Co. and consulting engineer; treasurer, R. B. Gillette, vice-president of the Gillette Rubber Co. The chairman of the board of directors is S. P. Woodard, president of the Gillette Rubher Co.

PLAN REVIVAL OF OLD ASTOR CUP CLASSICS

To Offer Purse of \$25,000 if Plans Carry—Again at Sheepshead Bay

NEW YORK, July 16—Racing men here are discussing a proposal for revival of the Astor Cup races, with the first contest at the Sheepshead Bay Speedway, September 20. If the project is carried out A. A. A. contest officials declare that a 200 or 250-mile race will be held, with a purse aggregating \$25,000.

The Astor Cup was last won by the Stutz team.

United Motors Service Extended

DETROIT, July 10—Branches of the United Motors Service, Inc., the service branch of the General Motors Corp., will be increased between now and Jan. 1 from sixteen to twenty-three. New establishments will be opened in Portland, Ore., Omaha, Dallas, New Orleans, St. Louis, Pittsburgh and Buffalo.

General offices will be maintained in Detroit under the supervision of Ralph S. Lane, president of United Motors. In connection with this expansion, the United Motors Service will install retail accessory lines in all of their branches. According to President Lane, this does not mean that the company is going into a general accessory business, but only that it will handle a few of the more technical and high-grade accessory lines.

Willys Puts Out Farm Light Plant

An electric farm light plant is about to be marketed by the Willys Light Division of the Electric Auto Light Corp. The light is known as the Willys Light, in unhyphenated form.

The sale and distribution of the Willys Light will be through its own sales organization, as the company believes that the farm light industry is of enough importance to warrant a separate sales organization.

The plant is of 750 watt capacity at 32 volts, operating in conjunction with a 160 ampere hour Exide battery. The engine has a single cylinder, bore 2% in. by 3½ in., and is of the Knight sleeve valve type. Cooling is by air. The normal operating speed is 1100 r.p.m, developing approximately 1 1/3 hp. The engine operates on kerosene, except that it must be primed with gasoline. The price will probably be \$525.

Fordson Getting Production Up to 500

DEARBORN, July 10—Henry Ford & Son Co. is now producing between 200 and 250 tractors daily and is rapidly running up production with the expectation of turning out 500 machines daily before the end of August.



CALIFORNIA TRUCK ROUTES THREATENED

Plan to Place Operation of Trucks Under State Railway Association

LOS ANGELES, July 12—There is going to be a battle royal in California between the motor truck interests, as represented by owners and dealers, and other interests, the identity of which has not been disclosed, over the recently enacted law that places the operation of motor trucks under the supervision and regulation of the State Railway Association. The charge is made openly that railroad interests are involved, but if they are they are working through an organization ostensibly formed as a means of protection to truck operators.

The plan is to make trucks engaged in freight and passenger transportation between cities public utilities and permit their operation only under franchise. They will have to operate over certain prescribed routes at fixed carrying charges. There can be no deviation from the routes and a schedule must be adhered to.

Opponents of the measure declare that there is no justification for making a motor truck a public utility, as no special rights or privileges can be granted, and unless the state grants privileges there can be no assumption of authority upon the part of the railway commission. Further, it is pointed out, control of this nature will put the trucking business in the hands of a favored few and this situation will be followed by an increase in rates over that now prevailing. With free lance competition, as now, trucks are not being operated at a loss, those engaged in the business say, and any restriction that results in higher rates will kill the trucking business and return to the railroads a monopoly.

White to Move to Long Island

NEW YORK, July 10—Long Island City, rapidly becoming a center for service stations of automobile sales houses in the metropolis, is to have a new enterprise in a combined sales and service station of the White Co., employing 400 to 500 persons. A building with four story front elevation, on Hampton Avenue, and a single story and basement at the rear is being erected for the company, which will give up its New York headquarters at Park Avenue and West 57th Street, about December 1, according to Manager W. H. Moore.

Locomobile Men Return

BRIDGEPORT, CONN., July 8—Three former Locomobile men have returned from service to the company. J. Murray Page has been appointed western district manager. Clinton B. Amorous, recently returned from duty as major in the aircraft zone of advance in France.

is now Chicago manager. J. W. Florida, a lieutenant-colonel in the Motor Transport Corps in France, resumed his old position of assistant manager at the Philadelphia branch.

Craig Tractor Enters Ohio

CLEVELAND, July 11—The Craig tractor, manufactured by the Craig Tractor Co., will be introduced to the farmers of Ohio by participation in the four Ohio State tractor demonstrations which will be held between July 28 and Aug. 15 under the direction of Professor Ramsower of the Ohio State University. A few minor changes have been made but essentially the model to be demonstrated will be the same as that shown at the Kansas City Tractor Show last winter.

11,000 TRUCKS WITH THE ARMY IN FRANCE

WASHINGTON, July 10-A total of 122,128 passenger cars, ambulances, trucks, motorcycles, bicycles and trailers were reported to form the motor transport strength of the United States Army in the United States, and 124,139 of these vehicles form the motor transport strength of the Army in France, according to statements made by Brigadier General C. B. Drake to the Committee on Military affairs at the recent hearing. Of these numbers, passenger cars in the United States total 9592, in France, 9809, motor trucks in United States, 57,712, in France, 51,781, and motorcycles in the United States, 16,712, and in France, 22,802.

Plowman Tractor Revived

WATERLOO, IOWA, July 11—The Interstate Tractor Co. has been purchased by L. C. Stearns, Minot, N. D., and the business will be revived almost immediataely under the name of the Plowman Tractor Co. It is understood the old Plowman tractor, made by the original company, will be redesigned and brought up to date, without, however, fundamentally changing the characteristic features.

L. C. Stearns, manager of the Minot Auto Co., Minot, N. D., Overland distributer for North Dakota and Montana, was instrumental in introducing the original Plowman tractor to the trade of the northwest. When the company fell into financial difficulties he brought about a reorganization. Production will be resumed at an early date.

Illinois Dealer Dead

CHAMPAIGN, ILL., July 10—Ahi Nelson, the veteran groceryman whose successful move, with his four sons, into the automobile trade was chronicled in Motor World, June 18, is dead, at the age of 70. After taking on automobiles as a side line, the Nelsons became so successful that they gave up their grocery store, opening a car salesroom, with branches at Peoria and Bloomington. The sons will continue the business.

TO RESCUE AUTOMOBILE CRIPPLES IN COLOMBIA

Half the South American Republic's Cars Balk Without Accessories

NEW YORK, July 15—Aurelio Nieto Eslava, the man who is said to have put the Republic of Colombia on the map as a selling field for automobiles, is here organizing a relief expedition for about half the cars in the country, condemned to idleness through lack of repair facilities and spare parts.

Eslave has hired a couple of Yankee garagemen, and is negotiating for accessories agencies, intending upon his return home within a month to open repair and accessory depots in the leading Colombian cities.

Eslava, who holds the Buick agency and claims responsibility for the introducing of automobiles upon his native heath, declares there never has been an attempt to furnish accessories there, with the result that the number of cars in operation is steadily dwindling through inability of their owners to obtain essential "fixin's."

Californians Change Name

POMONA, CAL., July 12—The Pomona Valley Automobile Trades Association has changed its name to the Citrus Belt Auto Trades Association and has re-elected its officers, including E. E. Wurl, president, and A. V. Storer, secretary-treasurer. The organization reports a membership comprising 90 per cent of the eligible list, and a prosperous year, with numerous measures favorably affecting the trade carried out.

To Repair Ignition

COLUMBUS, OHIO, July 12—Samuel W. Hyatt, John M. Armstrong, Burt M. Hall, Raymond D. Hyatt and Homer J. Clark have incorporated as the Hyatt Ignition Co., with an authorized capital of \$30,000. The concern will operate a factory for constructing and repairing ignition systems.

Automotive Ball Bearings Taxable WASHINGTON, July 12—Ball bearings are not subject to the revenue tax of 1918 unless intended especially for cars, trucks, motorcycles or as accessories for such vehicles, according to a notice from the office of the Commissioner of Internal Revenue.

General Automotive Co. for Newark

NEWARK, N. J., July 12—The General Automotive Co. has opened sales and service station at 177 Central Avenue. John M. Clarke, formerly connected with the Motor Car Equipment Co. and for over a year sales manager for A. J. Picard & Co., is president and general manager, and Carl James is secretary and treasurer of the concern.



SALE OF VEHICLES TO FRANCE HELD UP

Offer of \$300,000,000 Made for American Army Motor Cars Inadequate

WASHINGTON, July 11—The sale to the French Government of trucks, passenger cars and other automotive equipment belonging to the American Expeditionary Forces in France, has been held up as a result of what is considered an inadequate offer, according to Director of Sales C. W. Hare. Mr. Hare declared "that the French Government has offered only \$300,000,000 for all American army equipment in France, including automotive commodities which it desired to purchase, and which has an aggregate cost value of \$1,500,000,000.

As a result the sales have been suspended and a small party of industrial experts under Mr. Hare will be sent to Europe to organize sales offices and organizations throughout the continent to dispose of the equipment, unless France makes a better offer.

Sales are planned to Belgium, Roumania and Poland. American aircraft in Europe will not be subject to Mr. Hare's disposal, but motor trucks, passenger cars, motorcycles, tractors and practically all other army equipment will be either sold, or, if necessary, returned to the United States.

There are 9800 passenger cars, 7000 ambulances, 52,000 motor trucks, 22,000 motorcycles and 5700 trailers in France belonging to the American Expeditionary Forces.

Testing Savold Process Tires

CHICAGO, July 10—A 3500-mile road test of tires rebuilt from discarded casings under the new Savold process started last week from the Chicago Automobile Club. The test is under the supervision of F. E. Edwards, Chairman of the Club Technical Committee and will terminate with a Chicago to New York run. It is designed to throw light on the Savold Tire Corp.'s claim that \$200,000,000 worth of old tires is being wasted in the United States annually.

Alberta Licenses 3000 Cars

CALGARY, ALTA., July 10—Up to May 31, 1919, there were more than 3000 automobiles licensed in the province of Alberta, according to official figures given out by the deputy provincial secretary.

Packard Engineering Co. Formed

CLEVELAND, July 7—The Packard Engineering Co. has just been organized here by Warren Packard, Charles C. Price and W. R. Davis. All were connected with the Navy Flying Corps. Prior to entering the service Mr. Packard

was connected with the Curtiss Aeroplane & Motor Corp. Mr. Price has managed garage and repair stations. Mr. Davis was formerly technical editor of Motor Life. The company is installing Philbrin Ignition and is the distributer of Miller Carbureters and Ford speed specialties. Salesrooms have been opened on Euclid Avenue.

11,751 ARMY TRUCKS FOR BUILDING ROADS

WASHINGTON, July 11—The War Department has turned over 11,751 Army trucks, valued at \$33,432,395, together with 414 tractors, 550 miscellaneous touring cars and 1075 Fords to the Department of Agriculture for distribution to the various state highway departments for use in the construction and maintenance of highways throughout the United States. The fourth allotment of several thousand trucks, cars and tractors will be made shortly. The trucks are of 24 different types and sizes. Miscellaneous touring cars comprised more than 20 different makes.

These trucks, cars and tractors are being distributed by legislation passed last spring by Congress authorizing the War Department to turn over road building and other equipment, including trucks and tractors to the Departments of Treasury, Post Office and Agriculture. The Department of Agriculture allocates the equipment to the various states according to demands and requirements, allowing the states to use the equipment directly or to loan it to contractors at reasonable rates.

G. M. C. Engine Production

SAGINAW, July 10—Production of engines at the plant of the General Motors Corp. here is now at the rate of 50 daily. Within 30 days this production will be run up to 200 engines and from then on the schedule will continue to be boosted until a production of 300 engines daily is obtained. These are 4-cylinder engines for light trucks and passenger cars.

New G. M. C. Parts Maker

SAGINAW, July 10 — The Central Products Co., which has just been formed with a capital stock of \$10,000, is in reality another General Motors Corp. enterprise. Those interested in it are H. L. Barton, T. S. Merrill and H. H. Rice, all G. M. C. officials. The company will make parts for G. M. C. passenger cars and trucks.

Bean Tractor Coming East

SAN JOSE, CAL., July 11—The Bean Spray Pump Co., manufacturing two track pull tractors, one for field and one for orchard work, will introduce its product in the middle west this season. Announcement of this expansion policy will be made at the Wichita demonstration this week. Heretofore distribution has been confined to the Pacific coast.

PORTER TOURING CAR IN PRODUCTION SOON

\$5,000 Machine with 100 h.p. Motor to be Manufactured at Bridgeport

NEW YORK, July 10—Quantity production of the Porter car, which has been for more than four years in the experimental stage, bearing the initials of its originator, Finley R. Porter, will be undertaken in September. Manufacturing will be carried on at Bridgeport, Conn., by the American & British Corp., licensed by Porter, a member of the board of directors, as exclusive producer of the machine during the next ten years.

About a dozen F. R. P.'s were put on the market before the industrial curtailment imposed by the war necessitated a halt in the experimental work. Porter having joined the engineering forces of the Curtiss Aeroplane & Motor Corp., his son, R. D. Porter, is carrying on the development as chief engineer of the A. & B. Corp. It is expected that production will reach 350 cars the first season.

The Porter, equipped with the Porter engine of more than 100 hp., will be manufactured complete at the Bridgeport plant, and will sell for about \$5,000. Its passenger capacity has not been determined.

National distribution will be handled by the Morton W. Smith Co., New York.

Toledo-Milwaukee Air Express

CHICAGO, July 10—Aerial express service between Milwaukee and Toledo has been established by George W. Browne, Overland distributer in Milwaukee. The first trip was made this week when two airplane loads of tires from the Federal Tire Co., Cudahy, Wis., were delivered to the Willys-Overland Co., Toledo. The stop made was in Chicago.

20,000 Cars in the Maritime

HALIFAX, N. S., July 10—There are 20,000 motor cars in the Maritime Provinces. Of this number New Brunswick owns about 8000, Nova Scotia about 9000, and Prince Edward Island about 3000. Of this number about 1000 are heavy trucks. New Brunswick will spend \$500,000 extra on the roads this year and Nova Scotia \$1,500,000 extra.

Jordan Distributes Premiums

CLEVELAND, July 8—The Jordan Motor Car Co. has distributed \$25,000 to its employees as premiums, 15 per cent of previous year's wage being given to each one in the company's service two years or more, 12 per cent to those there from one to two years and 10 per cent to those less than a year.



COMING EVENTS

Races, Contests and Tours	Indianapolis, IndSept. 1-6State Fair. Cars and Accessories. Indianapolis Auto-
Jniontown, PaJuly 19Midsummer Meet, Speedway. (akima, WashJuly 25-28Fifth Annual, Washington Automobile Chamber of Commerce.	mobile Trade Assn., John B. Orman, Manager, Greenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett
Middletown, N. YAug. 15Dirt track event. Elgin, IllAug. 22-23Road race. Uniontown, PaSept. 1Speedway. Sheepshead Bay, N. Y. Sept. 20Speedway.	General Manager. Cincinnati, OSept. 13-20Ninth Annual, Music Hali Cincinnati Automobile Dealers' Assn., H. K Shockley, Manager.
Allentown, PaSept. 27Dirt track event. Cincinnati, OOct. 1Speedway. Trenton, N. JOct. 4Dirt track event. Danbury, ConnOct. 11Dirt track event.	Springfield, Mass Sept. 15-20 Eastern States Exposition. J O. Simpson, General Man- ager.
*Tentative dates	Detroit, MichOct. 6-11Closed Cars: Detroit Dealers Assn., Crosstown Garage. Chicago, IllNov. 3-8Business Exhibit of Automo
Meetings	tive Equipment Assn., Me dinah Temple. New York, N. YJan. 3-10Grand Central Palace, Na
niladelphia, PaSept. 22-24Annual Convention, National	tional Automobile Cham ber of Commerce, S. A
Association of Purchasing Agents, Bellevue-Stratford Denver, ColOct. 1Directors' Meeting, National Automobile Dealers' Assn. Atlantic City, NJOct. 14-17Twenty-fifth Annual Conven-	Miles, Manager. Chicago, IllJan. 24-31Coliseum, Cars: Drexel Pa vilion; Trucks, Nationa Automobile Chamber o
tion, Mariborough - Blen- heim, National Hardware Association of the United States.	Commerce, S. A. Miles Manager. Kansas City, MoFebFifth Annual, Kansas Cit Tractor Club, Guy H. Hali
hicago, Ill	Manager.
Temple.	Automotive Shows at Fairs Sedalia, Mo
Foreign Shows	tor Club.
aris, FranceOct. 15 Grand Palais—International Automobile Manufacturers' Congress.	Des Moines, laAug. 20-29Machinery Hall. Columbus, OAug. 26-29Cars and Tractors. E. V Walbor, Manager. Madison, WisAug. 26-29Cars and Tractors.
ondon, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers & Trades,	Lincoln, Neb
Tractor Demonstrations	Wheeling, W. VaSept. 1-5Cars, Trucks and Tractors. Hartford, ConnSept. 1-5Connecticut Fair Assn. Rochester, N. YSept. 1-6Automobile Club of Roches ter. E. F. Edwards, Man
Vichita, KanJuly 14-19Automotive Committee of National Implement Asn.	ager. Spokane, WashSept. 1-6Cars, Trucks and Tractors.
olumbus, OJuly 28-29In charge of Prof. H. C. Ramsower, head of Agri- cultural Engineering Dept. of Ohio State University.	Milwaukee, WisSept. 8-13Milwaukee Automobile Deal ers, Inc. Bart J. Ruddle Manager.
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of Ohio State University ostoria, OAug. 6-7In charge of Prof. H. C Ramsower, head of Agri- cultural Engineering Dept	Helena, Mont. Sept. 8-13 Cars, Trucks and Tractors. Syracuse, N. Y. Sept. 8-13 Cars, Trucks and Tractors. Douglas. Wyo. Sept. 9-13 Cars, Trucks and Tractors. Peoria, Ill. Sept. 12-20 Cars, Trucks and Tractors. Hutchinson. Kan. Sept. 13-20 Cars. Trucks and Tractors.
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berdeen. S. DAug. 19-21Tractors, Tractor Accessor- les and Farm Lighting Plants. Aberdeen Commer-	Manager. Billings, MontSept. 16-19Cars, Trucks and Tractors. Memphis, TennSept. 20-27Cars, Trucks and Tractors. Oklahoma City, Okla. Sept. 20-27Cars, Trucks and Tractor
cial Club. treator, Ill	J. S. Malone, General Mar ager. Pueblo, Col Sept. 22-27Cars, Trucks and Tractor
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ttawa. Ont CanadaOctober 14-16Inter-Provincial Plowing Match and Tractor Dem- onstration.	Muskogee, ÖklaSept. 29-Oct. 4. Cars. Trucks and Tractors. Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. I George, General Manager Chattanooga. TennSept. 29-Oct. 4. Chattanooga Auto Deale
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Burnett, Manager.	Raleigh, N. COct. 20-25Cars, Trucks and Tractors. Shreveport, LaOct. 22-27Cars, Trucks and Tractors.

Maxwell-Chalmers Orders Ahead of Production

CHICAGO, July 12—The Maxwell-Chalmers Motor Co. is reported to have orders for 27,000 Maxwell cars and 7000 Chalmers, their daily output averaging 200 Maxwell and 60 Chalmers.

There is \$17,000,000 due the two companies by the government, which will leave them \$4,000,000 working capital,

after taking care of current indebtedness amounting to \$6,000,000, and deducting government material on hand to the amount of \$7,000,000.

The Maxwell and Chalmers companies, after merging, contemplate an issue of \$10,000 notes which will provide funds until the settlement of \$10,000,000 by the government, after which the notes will be retired.

Cole Battery Increases Space

CHICAGO, July 14—Additions to the plant of the Cole Storage Battery Co. gives the company 14,000 sq. ft. of additional floor space. Other buildings will be added shortly. The new factory is at 2435-2441 Indiana Avenue. The general offices will remain at the present address until the new building is completed.



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A Glance at Its Present Performance and Its Future By Harvey S. Firestone, President, Firestone Tire & Rubber Company

'N previous considerations of Ship by Truck activities the truck express idea has been given prominence. The quick response of business men to this phase of Ship by Truck suggests the presenta-tion here of further data recently secured through the Firestone Ship by Truck Bureau.

For example, Omaha, Nebraska, and Flint, Michigan, have offered a valuable suggestion in the establishment of warehouses or freight stations used in common by the truck express companies entering these cities. This permits convenient handling of through shipments and provides prompt transfers from one truck line to another.

Ship by Truck seems to be offering lower rates to the public than might be supposed. A case in point, is the investigation made of rates out of New York City, disclosing the fact that to many points in the state, in Connecticut, in New Jersey, and Massachusetts, the truck express rates are lower than the railroad rates.

Lower rates may not always be obtainable through Ship by Truck. But the shipper will realize the fact that the extra speed, convenience and adaptability of the truck express systems may be had at the same or little more than prevailing freight rates. And the shipper gains a certainty of delivery, an elimination of goods damaged in transit, a lowering of boxing costs, and a favorable impression on his customers that could be obtained in no other way.

Reports are coming in to the Akron office of the Firestone Ship by Truck Bureau, showing with what enthusiasm

business men's organizations and entire communities are aiding the development of truck express lines.

Macon, Georgia, recently arranged a Ship by Truck demonstration day to test the truck express idea. Four truck trains, one train to a route, moved 100 tons of goods to towns within 50 miles of Macon. The demonstration was an education to merchants of the smaller towns as well as to shippers in Macon. A saving in time of from 1 to 10 days was accomplished.



Firestone Ship by Truck Bureaus are now in operation in the following cities:

Akron, Ohio Albany, N. Y. Atlanta, Ga. Baltimore, Md. Birmingham, Ala. Boston, Mass.
Brooklyn, N. Y.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio Cleveland, Ohio Columbus, Ohio Dallas, Tex. Davenport, Ia. Des Moines, Is Detroit, Mich. El Paso, Tex. Erie, Pa. Fargo, N. D. Grand Rapids, Mich. Great Falls, Mont. Harrisburg, Pa. Hartford, Conn. Houston, Tex. Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo
Les Angeles, Cal.
Louisville, Ky.
Memphis, Tenn.

Milwaukee, Wis. Minneapolis, Minn. Minot, N. D. Nashville, Tenn. Newark, N. J. New Orleans, La. New York, N. Y. Oakland, Cal. Oklahoma City, Okla. Omaha, Nebr. Philadelphia, Pa. Phoenix, Aris. Pittsburgh, Pa. Portland, Ore. Providence, R. I. Richmond, Va. Rochester, N. Y. Sacramento, Cal. St. Louis, Mo. Salt Lake City, Utah San Antonio, Tex. San Francisco, Cal. Scranton, Pa. Scattle, Wash.
Spokane, Wash.
Springfield, Mass.
Syracuse, N. Y.
Toledo, Ohio Washington, D. C. Wichita, Kan. Youngstown, Ohio

Call up your Local Bureau for Names of Lines, Rates, Schedules and Other In-formation Regarding Truck Shipment.

The Chamber of Commerce of York, Pennsylvania, seems to have an unusual record in spreading the knowledge of truck lines, routes and schedules among local business men. Among other things, a transportation map has been prepared which shows Ship by Truck routes to the immediate towns surrounding York, and also to Pittsburgh on the west, as far north as Buffalo, eastward to Philadelphia and New York, and a route south to Baltimore and Washington.

Detroit has proved that refrigerator trucks will move fresh meat to Toledo in about 6 hours as compared with 2½ days by rail. A Chicago packer ships to branch houses by a 12-ton semi-trailer.

A large ice cream company of Cleveland has reduced transportation costs diland has reduced transportation costs directly by operating trucks to Limaville—a distance of fifty miles—delivering ice cream and ice to their dealers on their down trip and bringing in cream on the return trip. Former delays and wastage were eliminated through this practical application of motor trucking.

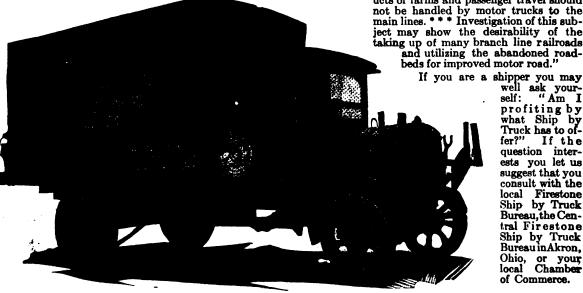
The activities of Detroit in fostering truck transportation for the benefit of local shippers recently took the form of a parade so extensive as to require two hours to pass a given point.

Even a cursory study of the growth of the truck express systems inclines one to agree with that official in charge of engineering and maintenance for the U. S. Railroad Administration, who said recently:

"Where, heretofore, development of the country for 50 miles either side of a trunk line of railroad has required the construction of light branch lines, it is a question to be seriously considered whether this policy should be continued or whether good roads should be constructed and the products of farms and passenger travel should not be handled by motor trucks to the main lines. * * * Investigation of this subject may show the desirability of the taking up of many branch line railroads

and utilizing the abandoned road-beds for improved motor road."

well ask your-self: "Am I profiting by what Ship by Truck has to of-fer?" If the question inter-ests you let us suggest that you consult with the local Firestone Ship by Truck Bureau, the Central Firestone Ship by Truck Bureau in Akron, Ohio, or your local Chamber of Commerce.



A practical, money-making example of the Ship by Truck movement

UNITED STATES DISTRICT COURT

Southern District of New York

ABEL SMITH

against

Plaintiff.

Defendant.

CAMPBELL MOTOR CAR COMPANY.

By order of Honorable Martin T. Manton, Judge of the United States Circuit Court of Appeals, the undersigned Receivers in Equity offer for sale, in whole or in part, all of the assets, both real and personal, consisting of the following percels, to wit:

Parcel No. 1. The entire automobile plant of the defendant company, located at the City of Kingston, State of New York, consisting of land and buildings (more fully described in parcel two), including a completely equipped plant ready for manufacture of automobiles, tractors and kindred products.

Tractors and kindred products.

This plant has a complete machine shop, assembling hall, radiator shop, fender department, stock and store rooms, steam and electric plant, separate office and administration building, with every necessary facility for immediate and constant operation. Railroad sidings running directly into the buildings. Located on the Hudson River, subject to very moderate tax rates, and with special donation contract from the Chamber of Commerce, of the City of Kingston. The plant is equipped, not only with machinery, and incidental operating parts, tools, patterns, jigs, dies, etc. but the administration building is completely equipped with furniture, fixtures, drawings, typewriters, safes and all the office fixtures requisite for such a business. Orders for over 1000 cars have recently been received by the receivers.

Parcel No. 2. Real estate and buildings described as follows, to wit:

ALL that tract or parcel of land, lying and being in the City of Kingston, County of Ulster and State of New York, bounded and described as follows, to wit:

and State of New York, bounded and described as follows, to wit:

BEGINNING at the northerly corner of Smith Avenne and Grand Streets and running thence northeasterly along the northwesterly lines of said Grand Street, six hundred and nin-ty-five and twenty-five one hundredths feet (695.25) to the corner formed by the intersection of the northwesterly line of Grand Street with the southwesterly line of Grand Street with the southwesterly line of Ten Broeck Avenue, and from thence running northwesterly along the said southwesterly line of Ten Broeck Avenue, and from thence running northwesterly along the said southwesterly line of Ten Broeck Avenue, and from thence running northwesterly along the said southwesterly line of Ten Broeck Avenue, three hands of the West Shore Railroad Company; thence south forty-nine degrees ten minutes (49°10') west one hundred thirty-eight and four-tenths feet (138.4); thence south thirty degrees twenty-five minutes (30°23') west to two hundred seventy-two and three one hundredths feet (272.03); thence southerly along the line of the lands of the West Shore Railroad Company one hundred sixty feet (160); thence southeasterly and still along the lands of the West Shore Railroad Company fity feet (50) to the lot of the Colonial City Traction Company; thence southeasterly along said lot of said Traction Company two and forty-two one hundred fith feet (2.42) to the northerly corner of said lot of said Traction Company one hundred fifty feet (550) to the easterly corner of said lot of said Smith Avenue, and thence southeasterly along said lot of said Smith Avenue, and thence southeasterly along the northeasterly line of said Smith Avenue, and hundred thirty-six and forty-seven one hundred fifty feet (136.47) to the place of beginning.

TOGETTIER with the appurtenances, hereditaments and all buildings located on the above

feet (136.47) to the place of beginning.

TOGETHER with the appurtenances, hereditaments and all buildings located on the above described property, and all the right, title and interest of the defendant, in and to the said premises, and in and to any land within the boundaries of Smith Avenue, Grand Street and Ten Broeck Avenue in the City of Kingston, County of Ulster and State of New York, ALSO ALI, that certain piece or parcel of land, situate in the City of Kingston, County of Ulster and State of New York, bounded and described as follows:

described as follows:

BEGINNING at the point formed by the intersection of the northwesterly line of Grand Street with the southwesterly line of that strip of lond heretofore shown on maps of said city, as Bruyn Avenue; and running thence northeasterly along the northwesterly line of Grand Street sixty (60) feet to the corner formed by the intersection of the northwesterly line of Grand Street with the northeasterly line of said strip of land, heretofore shown on said maps as Bruyn Avenue; thence northwesterly along the northeasterly line of said strip of land, heretofore shown on said maps as Bruyn Avenue three hundreds.

dred and three and sixty-six hundredths (303.66) feet more or less to a point distant southeasterly fifty (50) feet as measured along the northeasterly line of said strip heretofore shown on said maps as Bruyn Avenue from the center line between the inner rails of the present two (2) main tracks of the West Shore Railrond; thence southwesterly sixty-three and three hundredths (63.03) feet more or less to a point in the southwesterly line of said strip of land heretofore shown on said maps as Bruyn Avenue, distant southeasterly fifty (50) feet as measured along said southwesterly line from said center line; thence southeasterly along the southwesterly line of said strip of land heretofore shown on said maps as Bruyn Avenue two hundred and eighty-five and sixty-four hundredths (285.64) feet more or less to the place of beginning.

ALSO all the right, title and interest of the

ALSO all the right, title and interest of the defendant, in and to those premises heretofore shown on maps of the City of Kingston, as Bruyn Avenue, lying between lands of the West Shore Railroad Company and Grand Street, the said portion of Bruyn Avenue never having been actually opened, laid out or used as a street.

actually opened, laid out or used as a street.

TOGETHER with all the right, title and interest of the owner, in and to the use of a coal pocket, leased by it from the New York Central Railroad Company, more particularly described in a certain lease thereof, dated April 1, 1916, and sales all the right, title and interest of the said defendant, In and to the trackage now on the premises hereinbefore described, and in and to a certain private side-track agreement made by said party of the first part with the New York Central Railroad Company, dated July 22nd, 1915.

Also all right title and interest of the said party of the first part with the New York Central Railroad Company, dated July 22nd, 1915.

Also all right, title and interest of the defendant in and to any land, lying in the bed of any street, road or avenue, opened or proposed in front of or adjoining the premises hereby conveyed, to the center line thereof, or all right, title and interest of the party of the first part, in and to any award made or to be made in lieu thereof.

With the buildings thereon, situated, consisting of the following buildings:

With the buildings thereon, situated, consisting of the following buildings:

Parcel No. 3-Machinery

1 No. 1 Chicago Automatic Screw Machine
1 No. 2 Chicago Automatic Screw Machine
1 No. 2 Davis Keyseating Machine
1 No. 2 Davis Keyseating Machine
1 No. 18 Brown & Sharpe Milling Machine
1 No. 18 Brown & Sharpe Milling Machine
1 Chas. B. Allen Co. 4 Spindle Sen. Multiple Drill Press
1 No. 5 80" New Haven Mfg. Co., Drill Press
1 18" Prentice Drill Press
1 16" Barnes Drill Press
1 Barnes Drill Press
1 Duntley Universal Drill
1 Fervert Machine Co. Sensitive Drill
2 Press
1 John Barnes Co. 10" Sensitive Drill
2 Press
1 John Barnes Co. 10" Sensitive Drill
3 Press
1 Manning, Maxwell & Moors 12" Cold
4 Saw Cutting Off Machine
1 Manning, Maxwell & Moors 12" Cold
4 Saw Cutting Off Machine
1 No. 2 Marvel Draw Cutting Saw
2 Vertical Power Hack Saw
2 Vertical Power Hack Saw
3 Foot Press
4 Riveting Machine
5 No. 16 Jones & Lemson Turret Lathe
1 17" Simplex Filing Machine
1 No. 16 Jones & Lemson Turret Lathe
1 12" New York Turrett Lathe
1 12" New York Turrett Lathe
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1 12" New York Turrett Lathe
1 14" American Twist Drill Grinder
1 Hand Press Small
1 Hand Press Small
1 Hand Press Small
1 Hand Press Small Parcel No. 8-Machinery

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P. Rotary Shears
Cleese Crown Fender Machine
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8 Power Bench Machine
Combustion Folder Brake
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Hand Bench Beading Machine
Heavy High Power Bench Turning Machine
Bench Setting Down Machine 1 1 16

Heavy High Power Bench Turning Michine
Bench Setting Down Machine
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f. Additional information desired, may be secured upon application to the Receivers or their counsel.

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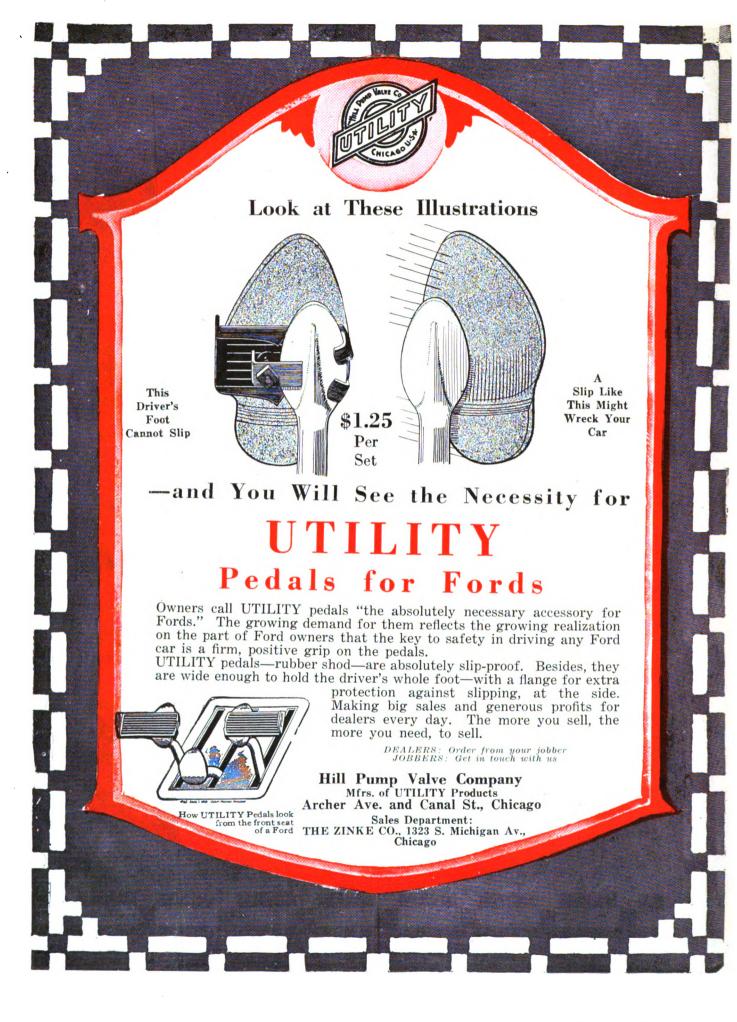
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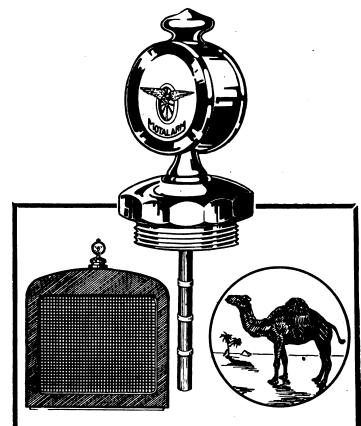
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The long tradition of Velie values has built a reputation wherever cars are sold. Today it is widening the market so rapidly that all the resources of a mile of Velie factory are required to maintain the supply.

This message is to advise dealers that a still greater proposition is in store for those who are fortunate enough to hold a Velie selling franchise this coming year.

If the Velie is not represented in your territory we suggest that you get in touch with us at once—new contracts are now being allotted.

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Stop Thief!

Reprinted from the June 18 issue of Motor World

June 18, 1919

STOLE 22,000 CARS IN WEST LAST YEAR

Thieves Make Good Get-away in Big Per Cent of Cases— N.A.D.A. Plans Action

ST. LOUIS, June 14—In 18 Western and Midwestern cities 22,273 motor cars were stolen in 1918, according to figures furnished the National Automobile Dealers' Association by the Automobile Protective and Information Bureau of Chicago, which is a business league of several motor car underwriting stock insurance companies. Detroit heads the list with 2637 cars stolen, Chicago second with 2611 and St. Louis third with 2241.

Kansas City led in the list of total percentages of stolen cars unrecovered, 46 per cent. St. Louis was second, 40 per cent of its stolen cars being lost absolutely. The tabulation follows:

S	tolen	Recovere	d % Loss	nex
Chicago	2611	1954	25	mo
St. Louis	2241	1354	40	nex
Kansas City	1144	606	46	is t
Denver		627	33	ŀ
Omaha	1039	669	35	the
Columbus, Ohio.	451	352	20	
Cincinnati		291	16	out
San Francisco		1082	4 1/2	ser
Los Angeles	1629	1499	10	_ <i>X</i>
Oakland		860	4	
Seattle		1376	6.	
Portland		990	9	- 1
Salt Lake City		790	ï	·'sh
Boston		607	30	is
Detroit		1954	26	the
Indianapolis			of rec'v's	•
Oklahoma City .		484	15	tru
Cleveland		1816	13	ne
The N. A. D.				
THE IN. A. D.	A. 0	irectors a	ippointed	mol

The N. A. D. A. directors appointed a committee to confer with manufacturers to arrange a plan for better identification of motor cars by a more complete numbering of the component parts of motor cars. Usually the motor number is all the owner knows by which

Are the car and accessory dealers to blame for the alarming increase in the number of car thefts?

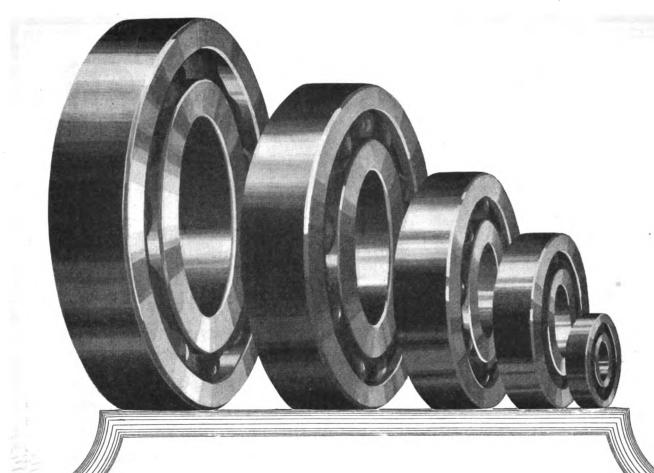
Is a dealer guilty of contributory negligence by permitting his customer's car to remain unguarded — without an adequate locking device?

We lock our cash drawers, and the windows and doors of our homes, because of our common sense. And common sense should be invoked to protect motor cars from theft.

If dealers who sell cars and accessories will do their duty and impress upon owners

the importance and necessity of adequate locking devices there will be a mighty rapid decrease in car thefts. And a good lock on a good car provides mighty good insurance.

An announcement incorporating the above idea would produce good sales results if posted upon bulletin board in your sales room.



from the largest to the smallest for every car and machine both new and reground in stock ready for immediate deliveryat all Ahlberg Factory Branches Ahlberg Bearing Company 317TO 327 EAST 29th ST. CHICAGO, ILLINOIS

Atlanta Boston Cleveland Detroit Kansas City Los Angeles Minneapolis Sain



NewYork Pittsburgh Omaha Portland,Ore Philadelphia Providence Louis San Francisco Val IX

New York, U. S. A., Wednesday, July 23, 1919

No. 4

Great! But It Doesn't Mean Anything



Lead on the following pages the story of the National tractor demonstration last week —and what must be done to make it of value to the industry.



From end to end the plowing field at Wichita was about a mile and a half long, and it

Why the National

Tractor Demonstration Was Useless

By J. Howard Pile

ICHITA, KAN., July 19—The Eleventh Annual National Tractor Demonstration was held this week on a series of fields at Tyler, about 9 miles outside this city. It was not unlike the ten others that preceded it, but from the spectacular point of view it was much larger, there being about a million dollars' worth of machinery on display. In spite of the gigantic size of the demonstration several facts stand forth:

1.—The national tractor demonstrations as run to-day are absolutely useless, valueless and devoid of any results.

2.—The man who visits them practically wastes his time and money.

3.—Unless drastic steps toward reform of the demonstrations are taken the national tractor demonstrations will die through lack of support and leave a stigma upon what will become one of our greatest industries.

4.—The demonstrations are run

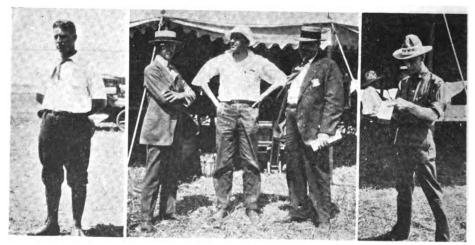
WHY

- 1—Devoid of results.
- 2-Visitor wastes his time
- 3—Reform needed if demonstrations are to continue.
- 4—No advertising of results permitted.
- 5—Competition discouraged by management.

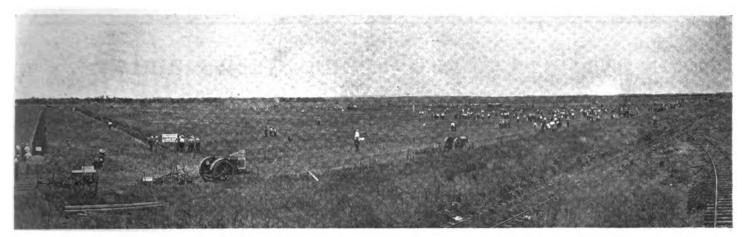
under a system that smacks of the atmosphere of the end of the dark ages. There is a systematic effort to prevent competition; manufacturers are censured if they attempt to get any results from the demonstrations by advertising.

5.—While open competition and limelight built up the great motor car industry, the tractor demonstration officials are pursuing an opposite course. They are work-

(Continued on page 33)



CLASS JOURNAL CO. representatives at the Wichita tractor demonstration—Left to right: David Beecroft, directing editor; Fred M. Loomis, tractor investigator; B. M. Ikert, Motor Age; Harry Gurnett, advertising division; J. Howard Pile, Motor World editorial staff



was a hard job to get over the whole area and see anything of the work of the tractors

And How Tractor

Demonstrations Can Be Made Valuable

By David Beecroft

W19.—When the tractor manufacturers set such a poor example for their distributers and dealers by way of tractor demonstrations as they did here this week it is not surprising that distributers have held stupid and meaningless demonstrations.

Tractor demonstrations are

HOW

- 1—Have real rules.
- 2—Record statistics and tabulate definite results.
- 3—Permit real publicity.
- 4—Encourage competition.
- 5—Have disinterested management.









Famous Men at the Wichita Demonstrations—Left to Right: J. B. Bartholomew, Sr., president of the Avery Co.; J. B. Bartholomew, Jr., Avery Co.; A. E. Hildebrand, manager of the demonstration; Herbert Chase, Society of Automotive Engineers.

on about as low a level of efficiency as it is possible to have them. The national demonstrations here this week were quite useless. The makers spent scads of money staging them, but they were not at all useful and the dealers and farmers were not present.

The fact that the attendance was a frost was the natural outcome of poor advertising of the event, poor publicity and a poor program.

The tractor industry deserves something worth while. It merits what might be designated a superdemonstration.

It needs a demonstration that shows something, that tells something, that gives dealers and farmers a chance to get a line on the ability of a tractor to perform and also the stamina of the machine.

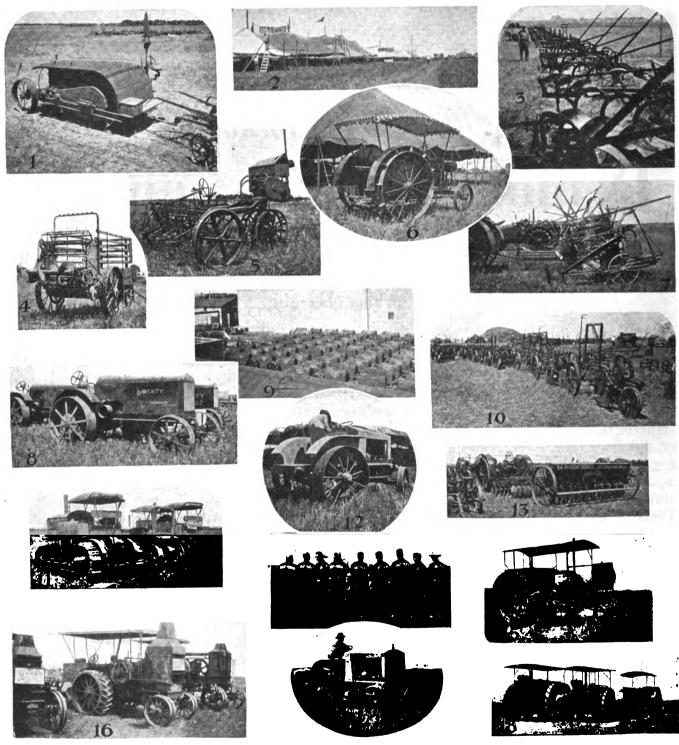
It is fortunate for dealers that few of them went to Wichita. They would have gone home sadly disappointed. The demonstrations did not give them an opportunity

(Continued on page 33)



Seen by the Camera—Some Views and Visitors at the Wichita Tractor Show

(All the photographs on this and following pages were taken by J. Howard Pile of the Motor World editorial staff)



Gray Covers Defeat the Weather.
 Part of the Tent City.
 A Row of Sanders Disks.
 An I. H. C. Spreader.
 I. H. C. Motor Cultivator.
 The Mid-West.
 A McCormick Binder.
 Liberty Kerosene Tractor.
 A Field of Fordsons.
 Oliver Plows.
 Three Holt Caterpillars.
 The Yankee—A Rear View.
 La Crosse Power Drill.
 Cultipacker Workers.
 The Big Russell.
 The 10-yr.
 Old Oil Pull.
 The Yankee—A Front View.
 Aultman Taylor Heavies

A Handsome Layout—See the Girls!





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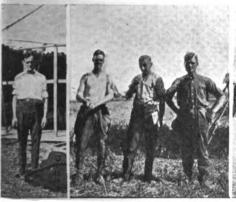
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E. U. Starr Four - Drive, Ser. Dept.



H. M. Curtis Wheat Tractor, Fact. Rep.



C. F. Jenness J. A. Curtis G. A. Brown H. G. Pelsue Cleveland, Agr. Wheat Tractor, Mpls. Sy. & Mchy., Sales Eng., Minne-apolis. Bulletin Fact. Rep. Salesman. Ser. Supt.









Geo. Haller Cloveland, A Sales Eng.















W. H. Duval F. W. Quick R. M. Hunter Harry Au D. P. McKee Roger D. Long L. R. Kelley Ray Kraus
Dunham Co., Sales- Dunham Co., East. Dunham Co., So. Dunham Co., Eng. Dunham Co., Eng. Dunham Co., Eng.
Dist. Sales Mgr. Rep. Dept. Ray Kraus
Dunham Co., Eng. Dunham Co., Ext. Dunham Co., Sales- Dunham Co., Eng.
Dept. Ray Kraus
Dunham Co., Ext. Dunham Co., Ext. Dunham Co., Eng.
Dept. Ray Kraus
Dunham Co., Ext. Dunham Co., Ext. Dunham Co., Eng.
Dept. Ray Kraus
Dunham Co., Ext. Dunham Co., Ext. Dunham Co., Eng.
Dept.



W. C. Carswell C. A. Watson Carswell Mfg., Four-Drive, Mana-Vice-Pres. ger.





O. J. Watson Watson Tractor, Wichita.



R. E. Young
American Tractor
Corp., Chief Eng.

E. J. Powell
Dunham Co., Sales
Mgr.





D. D. McCutcheon Campbell - Ewald, Adv. Agency.



Henry J. Barbour Avery Co., Adv. Mgr.

With Confidence in Every Face



G. R. Nickola Bates Mehy. Co., Anst. Salen Mgr.



F. 8. Matthews Four - Drive Trac-tor Sales Dept.



J. H. Kenneth Grand Detour Plow, Plowman for 43 years.







Geo. J. Sanderson Four - Drive Trac-tor, Scr. Dept.



C. J. Quinn Happy Farmer, Wichita Rep.



F. R. Preston Rock Island Plow, Adv. Mgr.



G. A. Bartholomew Oliver Plow, Omaha Mgr.



J. P. Smith Rock Island Plow. Kansas City Mgr.



H. L. Brubaker R. C. Flodin Int. Harv. Co., Int. Harv. Co., Tractor Sales Mgr. - Sales Engineer.





D. P. Davics
J. I. Case T. M.
Co., V.-P., Charge
of Eng.









C. A. Kessler
Four - Drive, Distributor, St. Joseph, Mo.

B. W. Root
Moline Plow, Tractor Sales Mgr.,
K. C., Mo.



B. A. White Holt Mfg. Co., Research Dept.



W. H. Oliver John Deere, Div. S. Mgr., Kansas City.



J. A. Perking O. W. Bull
Mpls. Steel 4 John Lauson, Sales
Mchy. Co., Asst. Mgr.



Want To See Some Smilers?



F. N. Gibson Advance - Rumely, Asst. Mgr., K. C. Branch.



A.C. Johnson Bean · Spray, Desgn. Engr.





B. E. Shoup C. L. Rice F. II. Oltman Allis - Chalmers, Simplex Spreader, La Crosse Tr., Salesman. Kansas City. Demonstrator.





H. Schuman Advance - Rumely, Salesman, Wich, Branch.



H. B. Kendrick Advance - Rumely. Salesman, Wich. Branch.



A. W. Fulwiler Holley Carb., Sales Engr.



J. R. Johnson La Crosse Plow, Asst. Sales Mgr.



Bylvester C. Turkenkoph Moline Plow, Sales Mgr.



R. T. West Wheat Tr., Fact. Rep.



Newell Saunders
Owner, Newell W. J. Dabney
Saunders Plow, Co., Atlanta.
Chatt. Tenn.,
former U. S. Senator.









H. O. Bird Rock Island Plow, Okla. City, Okla.



H. C. Buffington Minneapolis Steel & Machinery Co., Motor Engineer.



W. A. Hunt Holt Mfg. Co., Wichita Mgr.



W. J. Brandon Avery Co., Okief Engincer.





Lce C. Carlton
Ericason Mfg. Co.,
Mid-West Mgr.

B. E. Denniston
Wa'son Company,
Wishita, Tractor
Manager.

Can Sell 'Em and Fix 'Em, Too!







J. A. Mahoney
Allis - Chalmers, Kinnard & Sons, Maynard Elec.
Demonstrator, Mgg. Co., Sales
man, Mgr.



Noal T. Lawson L. F. Ellis, Sales-man.



L. F. Ellis Velie Distributor, Wichita.



J. C. Williams Nelson Corp., Chi-cago, Manager.









W. F. Barnes
Russell & Co.,
Russell & Co.,
Salceman.

P. V. Huriat
C. P. Weckn
Russell & Co.,
Russell & Co.,
Supt. Tractor Dept.
Asst. Supt.







H. P. Leonard F. H. McCarty B. C. Barth Rock Island Plow, Wheat Tractor, Rock Island Plow, Plow Expert. Fac'. Rep. Engineer, Kansas Utly.



O. E. Szekely Grid-Iron Grip Co., Engineer.













H. W. Brooks I. B. Benson J. E. Burnett A. Y. Bartholomew R. B. Townsend H. W. Hirshheimer F. J. Sprung General Ordnance Advance - Rumely, Dayton Donod Co., Avery Co., Asst. Townsend Mfg. Co., La Crosse Plow John Deere Co., Corp., West. Bales Adv. Mgr. Sales Mgr. Sales Mgr. Sales Mgr. Co., Asst. Adv. Bales Manager. Mgr.



And Once Again the Lady Enters'





L. A. Smith Avery Co., Field Manager.







Warren Cline E. J. Anderson Avery Co., Mgr. Avery Manager, Exhibit, Kansas City.





C. A. Bishop Hart Parr Co., Salesman, Wichita.



F. Heshke H. E. Kranz Coleman Tractor Coleman Tractor, Demonstrator, Kan- Service and Sales. sas City.







C. F. Marshall Coleman Tractor, Distributor, Kan-sas City.



D. E. Pendergast Coleman Tractor, Enid, Okla.







Above is shown the picture of a · Bean Track Pull cultivator in the midst of a field of corn. Actual field conditions are here shown, the exhibit causing much attention



The big Wolverine resembled an armored car such as might have been used on the battlefields of Europe, when viewed head on. It is shown here pulling an Oliver seeder

5 Things Your Boss Looks At In You

1—Your organization spirit

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2—Your get-results habit

3—Your ability to originate

4—Your accuracy

5—Your atmosphere

By RAY W. SHERMAN

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"HAT second thing," said Young Roper.

He sat down in Reilly's office in the little old chair where all visitors sat-close up and confidental.

"Huh? Oh—yes—I did tell you to come in 'to-morrow' and I'd tell you about the thing the boss looks at in the people in his organization, didn't I?"
"Yes, sir," said Roper.
"Well—yesterday we talked about

being an organization man, didn't we?"

"Yes," said Roper, although he wanted to add that he had done mighty little talking himself.

"Suppose to-day we talk about the getresults habit."

"Suits me all right," assented the young salesman, who had done a lot of thinking in the last twenty-four hours on whether he was as good an organiza-

"Very well, then," Reilly continued;
"let's call it the get-results habit. By

that I mean getting results."

Roper thought this a rather nonsensical beginning and decided that if he were boss he'd give Reilly about one more chance and then can him.

"There are odd things about the way different men operate."

Roper hadn't changed his mind much

about what he would do were he the boss.

"Some men," said Reilly, "can get right to things and get results, while others fummididdle around and never seem to be able to do the things that count.

"Some men will stand in the middle of a maze of work and just act confused, and not do anything of consequence. Other men will start doing something, but they start doing the things that count the least. They don't seem to come through with a wallop on the things that mean results. The other

type of man will cast his eye over this same mess of work, will single out the things that are most important, will gather at a glance what needs to be done to get the biggest result in the shortest time and will have the important things under way or done before the other fellows get started.

"I suppose the reason some men don't drive through to the biggest results is that they are burdened by certain habits of doing things. Were they to cut loose from these habits and go to the things that are most important they would get some big results, but they are in the habit of doing certain things at certain times in certain ways and they simply can't get over it. They are rutted for

"For example: Once upon a time when there were cars to sell-we instituted a zone system of selling in Callawassa. We divided the city into zones, gave each man a zone and tried to help him concentrate on actual selling. We had the organization all shaped up to take all the clerical and filing work off each salesman's hands so he would have nothing to do except sell, and, obviously, this meant that every salesman would make more money.

"But—we had a terrific job getting the thing over. In this organization results are sales. Sales are the only thing we live for. Therefore, we wanted the men to have all their time free for selling.

"But most of them simply couldn't get over the habit of making out reports. They would come in and, under the excuse that the girls were busy, would start doing their own clerical work. We couldn't make some of them get over it.

"We have men, and boys, and girls, in this organization, who insist on doing things in their own habitual way. If you want a telegram sent there is often

considerable delay before it gets out, simply because someone insists on finishing some inconsequential job first. If you want a quick service job turned out some mechanic will finish what he's doing before he gets busy.

"All these delays may be only minutes or seconds, but they seem like years when really important things are waiting. Don't forget this, Roper, the destinies of the organization are in the hands of the head of the organization. Maybe some of the things he wants done NOW may not be as important as he thinks they are, BUT-his estimate of you is based upon the promptness with which you do the things that he THINKS are important. If he wants a letter dropped in the mail box NOW drop it NOW, even if the mail man doesn't come for four hours to collect the mail.

"Two things are the most important things. One class is those that the head of the organization considers important. The other class is those jobs that are strictly under YOUR control and which you must determine for yourself are im-

"In your own line of work, Roper, are certain jobs-let us say there are fivethat are in greatest need of being done first. What are they? Can you single them out? If you can, you're fifty per cent right. Having singled them out, have you got it in you to get at them, right off the bat, and get them done? If so, you are 100 per cent right. And no man in the world can give a man the habit of doing things this way. It's a job that's up to every individual."

"Gosh—" Young Roper, having

thought much during twenty-four hours on the conversation of the day before, walked out to the salesroom floor, with the conviction that he was going to do some more serious cogitating.

THE STATE FAIR

And the Possibility That It Offers—with the County Fair—to the Automotive Dealer for

- 1—Motor Car Shows
- 2—Truck Exhibitions, and
- 3—Tractor Demonstrations

YEAR by year the "fair show" has grown in importance in the motor world. From tiny beginnings some "fair shows" have come to rival the mid-winter shows. Within late years the fair has been made the scene of tractor demonstrations. And now comes the truck exhibition as well. All of which suggests that dealers everywhere would do well to investigate carefully the possibilities of their participation in the fall fair. This story summarizes what is happening in many sections. There are ideas here for the dealers in every city where a fair is to be held.

HE season of the summer and fall fair is fast approaching and its possibilities for show purposes should be carefully weighed by automobile dealers and manufacturers. Does it offer a field that may be made a profitable adjunct to the winter show and is it possible to look upon these state and county expositions as centers in which profitable sales may be made and from which valuable advertising and future business may be coined?

The Fair Shows Grow Larger

These questions must be met in a manner that will foster the greatest growth of the motor industry. It may be that the winter show is sufficient to meet present day demands or it may be that the summer and fall exposition has grown to the point that it cannot be overlooked in good salesmanship plans.

For years, these fairs, some small and some large, have been struggling to maintain creditable automobile and tractor sections. Some have met with success and have proved their right to continue as factors in the year-by-year showing of cars. But others, perhaps lacking the proper co-operation of dealers and trade associations, have failed and their exhibitors have not been rewarded with the expected benefits.

What about your territory?
Has it a fair show worthy of your support?

Can you afford to use it as a medium of salesmanship?

Motor World has sought to sound the sentiment and to ascertain what is being done this year to enlarge the summer show idea. The result is the knowledge that some states will hold fairs with large automobile exhibitions, not only for tractors but for passenger cars and trucks as well. Scarcely one of these exhibitions-and they take in all sections of the country—has failed to arrange some kind of tractor exhibition and most of them have turned over buildings or space for the showing of cars and trucks. Interest apparently is increasing, to judge from the replies. in the truck lines and many fairs that have overlooked the commercial car in previous years are going after them heavily in 1919.

The Wisconsin State Fair, to be held Sept. 8-13, has taken the lead in promoting the fall motor show. The success of its annual exhibition cannot be doubted, as the Milwaukee dealers prepare for it almost as thoroughly as they do for their own winter exhibition. The dealers' association of that city has got behind the fair show in big shape and, in cooperation with the fair officials, has made it of great importance throughout that State. Its magnitude may be gathered from the following letter recently received from Oliver E. Remey, the fair secretary:

Had 100,000 Paid Admissions

"The best automobile show west of New York has been given for the past five years at the Wisconsin State Fair, which includes pleasure cars and trucks.

"For three years we, also, have had the best tractor show of any state fair. This year already 30 companies have signed up for space and they will exhibit about 200 tractors.

"The automobile show occupies a building with 60,000 square feet of space. Farm machinery and tractors occupy 50 acres. In the automobile show, 80 automobile factories, 60 motor truck factories, 8 hauling truck factories, 10 trailer factories, and 500 accessory factories will be representative.

The exhibition of cars there will be in a state-constructed building of concrete.



steel and glass, said to be the first structure of its kind erected on any state fair grounds for this purpose. The dealers' association—with Bart J. Ruddle, assistant secretary, in charge—pays an annual rental for the structure of \$4,000 and an admission of ten cents is charged. The annual report shows that nearly 100,000 persons paid this admission last year, despite the unfavorable war conditions, to view the automobile show.

"We spend just as much money decorating it and promoting our state fair show as we do our winter show," Ruddle writes. "The exhibits equal those of the winter show in every department.

"Many of the dealers comprising the Milwaukee Automobile Dealers' Association derive more direct and immediate results in a retail way from the state fair show than from the winter show, and 1081 dealers and sub-dealers, out of a total license registration of 16,000 dealers in the state, reported to the various distributers at the 1918 state fair show. Distributers of the medium-priced cars regard this show as of more value to them than the winter show, both as a medium of wholesaling and retailing."

The Milwaukee idea also consists in the utilization of the county fair as a means of reaching the retail trade. The association has compiled a list of more than 75 of these smaller expositions to be held during August, September and October, all or nearly all of which will have some sort of automobile representation.

Fairs Popular in Middle West

Throughout the Middle West, the state fair show idea seems to be gaining larger and larger proportions. Iowa, like Wisconsin, has alloted a space of 60,000 square feet, in the machinery hall on the fair grounds at Des Moines, for automobile exhibits, and already about forty tractor companies have arranged for demonstration room outside that building. The officials of the Minnesota State Fair have retained Walter R. Wilmot. of the Minneapolis Automobile Trade Association, to manage this year's show for the annual exposition at Minneapolis, and Wilmot declares simply that it will be a "whale of an exhibition."

The Kansas Free Fair, at Topeka, has erected a motor hall with space for 24 exhibitors, and the Kansas State Fair, held at Hutchinson, "will have a large exhibition of automobiles, trucks and tractors," according to a letter from the fair secretary. The Missouri exhibit, at Sedalia, has been a large one for several years, much room being given over to all types of motor equipment.

Oklahoma, for its fair at Oklahoma City, devotes an entire building, 85 x 275 feet, for the sole purpose of passenger car and truck concerns, the tractors being shown on an open field. The showing there is described as one of the best and most largely attended sections of the fair.

In the East, the show at the New York

State Fair, held at Syracuse the same week as the Wisconsin exhibition, is probably the largest. At least forty types of tractors are expected to be shown this year, according to announcement, in a three-day demonstration. This will be under the supervision of the State Food Commission. Equal areas of ground will be assigned to competing machines and it is the plan to seal the tractor tanks, with operations starting upon a given signal. The same number of car and truck companies have been allotted space at this time and more are expected before the exhibition opens.

Association Aids at Indianapolis

Some of these fall shows are being arranged by the officials of the fair associations, while, in other instances, dealers' associations are promoting them, as is the case in Indiana. The new automobile building on the grounds at Indianapolis, with a floor space given as 80,000 square feet, has been rented outright by the Indianapolis Automobile Trade Association and it has in charge all details of the show. This association takes the

The fair show idea has grown to huge proportions from the small beginnings of a few years ago.

Have you thoroughly investigated the possibilities of making both immediate and future sales through the medium of such shows?

The season is approaching.

stand that its fair show is an excellent place for the sale of cars and points to its seven years' experience in proof.

Some of the Fairs Listed

This brief resumé covers only a few of the larger fairs that will devote much space to automobiles and tractors this year. Among others are the Ohio, Texas, Nebraska, Connecticut, Colorado, Michigan, Mississippi-Alabama, Kentucky, South Carolina, North Carolina, and Louisiana State Fairs; the Rochester Industrial Exposition, Rochester, N. Y.; the Peoria District Fair, Peoria, Ill.; the West Michigan Fair, Grand Rapids, Mich.; the Eastern States Exposition, Springfield, Mass.; the Chattanooga Inter-State Fair, Chattanooga, Tenn.; the Lancaster County Fair, Lancaster, Pa., and the Central Canada Exhibition, Ottawa, to mention some of the letters received by Motor World. Hundreds of county fair associations throughout all sections of the country will hold expositions of greater or less magnitude and at practically all of these some effort will be made to obtain the exhibit of cars and accessories. There scarcely is a State in the Union without some sort of a large fair, each offering an opportunity for the showing of automotive vehicles and equipment.

In considering the fair from the stand-

point of a sales exhibition, the dealer who is debating the advisability of using it, must consider well the character of crowds in attendance. All classes of persons, from city, hamlet and country, make up the thousands that daily flock into these exhibitions. Many of them are potential motor car buyers, while a large majority could not be considered in any light as possible prospects.

It is a gathering that does not attend merely for the purpose of seeing motor cars and equipment, as at the winter show. There are many other interests to attract them—the races, the prize cattle, the side shows, and the dozens of other features that make up the fair grind. The motor car, in such a crowd, becomes only one of many counter attractions, each exerting a pull upon the thousands of visitors.

That brings, however, the problem of the show to the problem of merchandise science. Exhibits must be made so attractive that the prospect is pulled to it despite the countering draw of the other shows. Careful publicity, beforehand advertising, and well-made plans of salesmanship must be brought into play if the showing is to be successful. The mere placing of a car in the allotted space, with the drawing of prospects left to the chance of the visitor stumbling upon it, will not mean money in the sellers' pockets, rather will it mean a loss of time, energy and opportunity.

May Rank with Winter Show

Perhaps, the proper co-operation of dealers' associations would do much to overcome this difficulty. Many of these associations seem to have ignored entirely the possibilities of these summer and fall shows and to have left their members to "go it alone." Some association officers apparently have taken the stand that such an exhibition is entirely out of their control and that the fair must stand or fall, so far as it concerns profit to the motor trade, without aid on their part. Other associations, however, have gotten squarely behind this show idea, working with fair officials and members in promoting publicity, arranging drawing "stunts" and endeavoring in every way possible to achieve a big suc-

But it is entirely a trade problem as to whether or not showings at these fairs may be made profitable and whether or not they should be patronized more freely by dealers and manufacturers. Many dealers believe that the summer and fall season is such that shows should not be held at that time, preferring the winter months just as the new models are out and just before the spring comes with its heavy demands for cars. Against that belief, is the testimony of hundreds who have realized valuable advertising and made money out of these expositions.

The winter show, of course, must not and cannot be dispensed with; it has become a permanent institution. But it is possible, and perhaps even probable, that summer and fall shows may be worthwhile adjuncts and that it would be commercial laxness to overlook the opportunities of such exhibitions.



SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

Plan No. 1

.

Garage, Showroom and Accessory Store

Character of business—Car sales, accessory store, repairing and garagina.

Details wanted—Layout of departments for building now in use, 2-story in part, to provide for show-room, main office, private office, stockroom, store, battery room, repairshop, tire repairshop, toilets and lavatory.

Name—The Osmundson Garage, Will-mar, Minn.

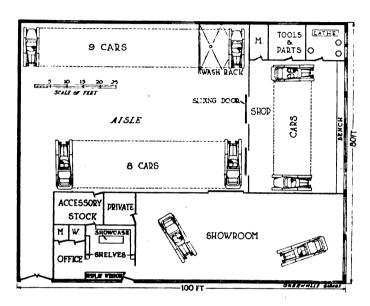
Answer—You say that you desire to provide for a store and we presume, of course, you mean an accessory store and have set aside the first floor of the two-story part of the building on Fifth Street as best suited for that purpose.

This arrangement will give you an excellent store with a fine chance to display a complete line of accessories, both inside the store and by means of the two show windows.

For car display we recommend that you partition off two rooms, one on either side of the large door in the center of the one-story part of the building, using glass partitions so that the cars on exhibition may be seen by those who drive into and out of the garage.

It would be well to have the large

Plan No. 2— Salesroom and service station, 80 x 100 ft., for the Greenville Garage & Auto Co.



showroom on the left of the door, bringing it back to the line of the stairs to the cellar, as this will enable you to get direct communication with the accessory store and will keep your selling organization close together.

The smaller display room on the right should also be made with glass partition. It should be large enough merely to accommodate one car. The chief purpose of this room would be to take advantage of the window and thus get 100 per cent of your display possibilities.

On the upper floor would logically be placed the repairshop, battery room and tire repairshop as shown on the sketch.

The logical place for the office is in the front portion of the second story on the Fifth Street side. The plan shows two private offices but one of these can easily be eliminated if desirable.

By placing the stockroom at the head of the stairway at the rear of the store it will be accessible to all parts of the building, as it can be reached from the garage, repairshop, store and office.

Plan No. 2 A Building 80 x 100 Feet

Character of business—Sales, service, storage.

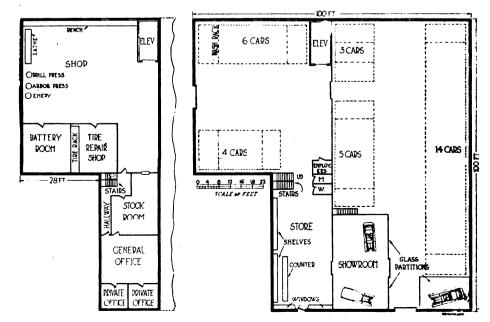
Details wanted—Size of lot 100 ft. front, 80 ft. deep, not on a corner but with a 12-ft alley on one side, salesroom, storage space, etc.

Name—Greenville Garage & Auto Co., Greenville, Miss.

Answer—Here is the plan you requested. The private office and the accessory stock room should be lighted and ventilated by skylights.

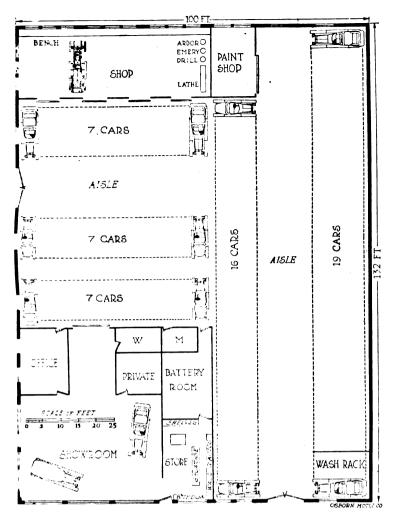
We have no roof designs available but this should cause you no difficulty. Your local architect or builder should be able to design a roof without posts which will be perfectly satisfactory.

A roof which is moderate in price and which does no require posts is that patented by McKeown Bros. 24 Cottage Grove Avenue, Chicago. They will put up the roof or furnish you with the prints, just as you desire.



Plan No. 1—Salesroom, garage and repairshop designed for the Osmundson Garage

Digitized by Google



Plan No. 3— One-storybrick building, 100 x 132 ft., with salesroom, repairshop and battery department, designed for the Osborn Motor Co.

Plan No. 3 One-Story Brick Garage Building

Character of business—Car sales, repairing and garaging.

Details wanted—Building 100 x 132 ft. providing showroom, reasonably large accessory store, stockroom, battery department, repairshop.

Name—Osborn Motor Co., Sidney, Neb.

Answer—The plan we have worked out for you allows for a showroom, accessory store, stockroom, shop, battery room, paint shop, and a considerable amount of storage for customers' cars. It would not be advisable to put more than four cars in the showroom, as more than this would crowd it considerably. The showroom was cut down to this size to obtain a compact layout at the front of the building. If it is not large enough for your needs, the rest of the building can be reduced a little bit to make space for a larger showroom.

Six cars can be readily accommodated in the shop and this should be a sufficient number for minor adjustment, and the storage of cars waiting repairs and repaired cars awaiting delivery are handled in the storage part of the garage space.

It would not seem advisable to put a full-length basement under this garage as you would hardly have any use for it. It is not a good thing to store cars in the basement because the lack of sun-

light always results in more or less dampness and this is injurious to the cars. Repairs cannot very well be conducted in a basement because the light is very poor as a rule and, besides this, the workmen do not seem to care to work eight hours a day under such circumstances. You might put a small basement under part of the building for a furnace and other necessary adjuncts.

The advisability of building an apartment over the garage would depend largely on the building laws in your city or state. In some communities the law forbids the building of a dwelling or apartment over a garage on account of the danger of fire. It would be well to make a careful investigation of the law on this subject before building.

Plan No. 4 Two-story Sales and Service Building

Character of business—Car selling and service, accessories.

Details wanted — Two-story brick building on corner lot, 50 ft. wide by 131 ft. deep, showroom, offices, accessory store, stockroom, shop and parts department, storage for new cars on second floor.

Name — Salley Bros., Orangeburg, S. C.

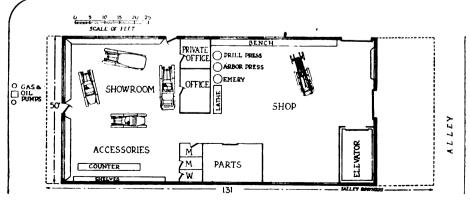
Answer—In the plan herewith we have assumed that you will carry out your suggestion of widening the sidewalk in front of the building 5 ft. and will leave a 20 ft. open space at the rear of your lot for the construction of a shed and washrack. The size of the building will, therefore, be 50 ft. wide by 106 ft. deep on the side street.

By placing the door in the center of the front of the building you will be able to get large display windows on both sides of it, one of which can be used for cars and the other for accessories. It will be well to display the cars in the space at the left of the door upon entering as this will enable you to take advantage also of another large window in the side of the building. A door, just beyond this window, will permit of direct access to the offices. third and larger door at the end of the building, will give direct access to the shop and also to the elevator which will be used to carry cars to and from the second floor.

The accessory department would logically be placed at the right of the main show room, from the point of view of one entering. The layout provides for ample counter and shelf space and it will be possible to make a very attractive accessory display inside the store with this arrangement.

The parts department has been placed in approximately the center of the lower floor in order to be easily reached from all parts of the building.

By providing for a large door in the center of the rear, you will allow for direct communication to the shed which you expect to build later and you will also have a convenient means of getting cars in and out of the building by means of the alley whenever this is desirable.



Plan No. 4—Salesroom and repairshop, two stories, 50 x 131 ft.

Repairshop Shortcuts

From Motor World Mechanics

No. 2215—INDEXING A LATHE CHUCK

A lathe chuck or face plate can be indexed or divided into different fractions of a circle by putting a strip of paper around the outside and cutting the strip to just the length of the circum-ference. The strip is then divided off by marks into halves, quarters, eights, sixths, etc. The strip is then replaced on the chuck and these marks transferred to the outside of the chuck with a scriber. Numbering stamps are used to mark the divisions. In use, a surface gage is laid on the lathe carriage or ways and the point of the gage brought in line with the zero. The chuck is then turned around any desired fraction of a circle.-V. L. Cameron, Oklahoma City, Okla.

No. 2216—SPRING CLIPS TO HOLD SHIMS

Shims are held up in place when removing or adjusting connecting-rod caps through the use of spring clips. The clips are made of No. 16 piano wire The caps are loosened a trifle and a clip slipped in on each side around the bolt and under the shims. The caps can then be taken entirely off and the shims will stay up in place until the caps are put on again.—O. P. Berg, Mt. Horeb, Wis.

No. 2217—REPLACING A SPRUNG RIM

When the lock ring on a Kelsey rim has been sprung so that it does not readily go back in place, a pipe wrench is used to assist in the replacement by hooking the upper jaw over the lock ring and adjusting the wrench so as to make the lower jaw come up snug to the rim proper. A slight pressure on the pipe wrench and a few light taps on the lock ring will bring it into place.—E. G. Bracken, City Service Station, Twin Falls, Idaho.

No. 2218—LETTING THE AIR OUT OF A TUBE

In testing a tube, the tube is partially inflated and then held under water to detect the location of the leak. If the spout of an oil can is then inserted in the leak, the air can be expelled through the spout without the necessity of removing the valve core. This will save considerable time.—Leon C. Buschman, O'Neal & McKay General Garage, Vevay, Ind.

Make a Dollar

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World We will pay you a dollar for every one accepted for publication.

The only requirements are these:

. 1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

No. 2219—PUTTING A TROUBLE-SOME TOP IN PLACE

The top that gives trouble when attempting to get the front end into the sockets can be easily pulled into position by running a light double rope from the bow to the top of the windshield and then twisting the ropes with a short stick of wood. The twisting will shorten the ropes and the top will be pulled up so that it will go into the sockets quite easily when the ropes can be removed.—Fred F. Green, Jamestown, N. Y.

No. 2220—HOLDING BEAD MOLDS TO CASING

The difficulty in holding Q. D. sectional bead molds to a casing when placing in the vulcanizer is overcome by drilling ¼-in. holes 1 in. from the ends of each section and driving pegs into them. The pegs are then filed off chisel fashion 3/16 in. from the side of the mold. When placing the casing in the mold the plugs will imbed themselves into the bead making it impossible for the mold to slip off.—Raymond Miller, Talmage, Nebr.

No. 2221--REMOVING FORD SPINDLE ARM BUSHING

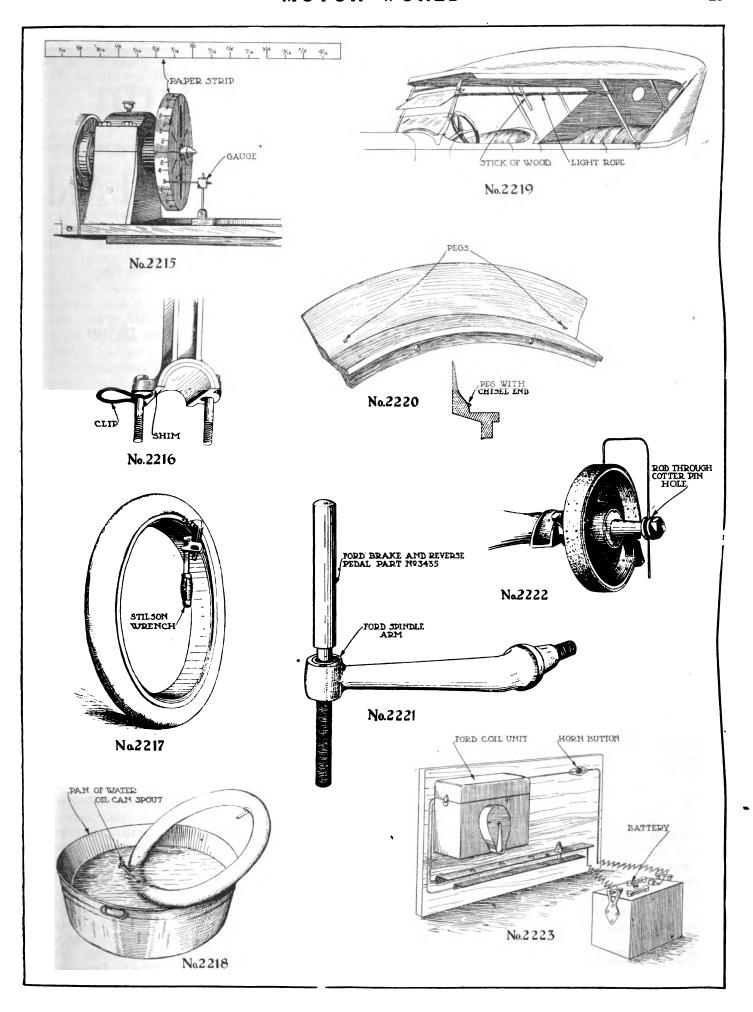
The spindle arm bushing of the Ford can be easily removed by using a brake and reverse pedal shaft part, No. 3435, as a bushing driver. The smaller end will go through the bushing and the shoulder will catch on the bushing so that it can be driven out with a hammer when the spindle arm is held so that the bushing can be driven out.—Dan S. Bustisiki, Evans-Robbins Motor Co., Vandalia, Ill.

No. 2222—LINING UP INTERNAL BRAKE SHOES

In adjusting the internal expanding brakes, especially after they have been relined, the parts of the shoe should be be so set that the exterior of the lining will come in a perfect circle with the center of the axle as an axis. A test gage for checking this up is made out of a small piece of rod which is inserted in the cotter pin hole in the axle shaft. The end is bent over at right angles so as to act as a surface gage and the long end of the rod is held tightly in the cotter pin hole by screwing the axle nut up against it. The shaft is then revolved slowly and the distance between the point of the gage and the brake linging should be uniform at all points. Thomas Hill, Niagara Garage, New York City.

No. 2223—SPARK PLUG TEST BOARD

A test board for spark plugs is made by mounting a Ford coil unit on a board and connecting up the high tension terminals to strips of metal one of which makes contact with the shell of the plug and the other with the terminal. The board is made about 6 x 12 in. and the primary contact is made through a horn button. Current is taken from dry cells or a storage battery.—Leon Blimline, Peoples Auto Supply Co., Reading, Pa.



Editorial Observation

The Dealer and Government Road Aid

Do you know that

The Federal Government has contributed \$24,000,000 toward state road improvements?

The projects agreed upon cover 5,800 miles of highways?

Additional projects approved, but awaiting execution of agreements, will bring the aggregate Federal Aid up to \$65,000,000, providing for 12,790 miles of highways?

Continuation of Federal Road Aid is proposed by appropriations ranging

from \$400,000,000 to \$1,000,000,000?

Forty bills in Congress, showing the awakening interest in good roads, provide, among other things, establishment of a Highways Department with a Cabinet Officer presiding and creation of a national system of highways?

One thousand organizations have petitioned Congress for a comprehensive

Federal highway policy?

Is your association

On the good roads band wagon? Have you studied the highway bills and written your Senator and Representative about the ones you approve?

GENERATION ago men who went about the country talking good roads were classed as idealists—little better than agitators. To-day good roads are a fact in hundreds of counties that could boast nothing but wagon trails in the dying days of the nineteenth century, and a growing family of organizations, local, state and national, are thinking good roads, talking good roads, writing good roads, DEMANDING GOOD ROADS.

The result is an awakening of Congress, State Legislatures, county and municipal administrations to the might of a movement which, if wisely directed, will equip the United States with the world's finest system of public highways.

Good roads propaganda, succeeding the aimless agitation of former years, fathered the Federal Aid plan, which, though still in its infancy, has contributed almost \$24,000,000 to 5,800 miles of state road projects. It prompted introduction into the present Congress of more than forty bills aimed predominantly at nationalization of the highways. It brought practically every commercial, educational and industrial association into line as a good roads booster.

The good roads movement, of course, is an outgrowth of the automobile industry. Automobile men have been leaders in the campaign. It follows that they will be keen students of the early achievements of the Federal Aid plan, of legislative proposals and of the activities of the various groups of highway improvement organizations.

But they must do more than that, in justice to themselves, to the industry and to the public good.

The National Automobile Dealers' Association is a hard worker for good roads, but the task needs the active support of local organizations of automobile men, from one end of the country to the other. Dealers' associations ought to study the various projects, take votes of approval or disapproval and GET THEIR OPINIONS BEFORE CONGRESS.

As a background for consideration of the numerous road reform schemes, it is interesting to note the keen interest of the state administrations in the Federal Aid plan. Disposal of the national road funds has developed a spirited race between some of the larger states. Pennsylvania has the lead, with nine projects entailing an expenditure of \$2,500,000, to which the nation contributes, in round figures, \$1,-450,000. Georgia, with sixteen projects and \$870,000 Federal Aid toward an estimated cost of \$1,840,000, stands next. Illinois has a single 65-mile road under contract costing \$1,630,000, of which the national share is \$818,000. Idaho has a 30-mile improvement planned, with \$325,000 of a \$650,000 expenditure to come from Washington. Ohio, Connecticut, Maryland, Wisconsin, Louisiana and Virginia are included in the list of approved applicants for help from the Federal bureau—a list whose rapid increase from month to month shows a general determination of the people to take up seriously the imperative need of every section of the country, agricultural, residential, commercial or industrial, for serviceable automobile and motor truck roads.

The Federal Aid plan, administered by the Highway Engineering Bureau of the Department of Agriculture, may be amended or supplanted by one or more of the development proposals contained in the varied bills now before Congress as a result of the efforts of the Highway Industrial Association, the highway transport committee of the Council of National Defense, the road committee of the National Automobile Chamber of Commerce, the American Automobile Association and numerous local organizations.

The bill introduced by Senator Townsend of Michigan, which has been the object of widespread praise and criticism, provides for a national system of highways, a Federal Highway Commission and a painstaking study of the nation's transportation problems. Re-introduced, with slight amendments, after its failure of passage in the last session, the measure would create a commission of three members, appointed for six-year terms, to have supreme authority over the trunk highways; it would compensate states which have built at their own expense links in the national good roads chain; it would authorize purchase of necessary road machinery and motor vehicles and it would obtain state co-operation by requiring consent of a commonwealth to entrance of the national system within its boundaries.

This bill has the support of the Highway Industry Associations, which reports that 1,000 automobile association, boards of trade and similar organizations have petitioned Congress for its passage.

Senator Jones of Washington is sponsor for a bill creating a Department of Federal Highways and establishing a national highway system.

Senator Morris Sheppard of Texas is author of a measure calling for a military highway along the Southwestern border, while Representative Hayden of Arizona also would have the War Department at once undertake a survey and investigate the need for a boundary road.

Senator Jones of Washington would have a survey of the entire Pacific Coast for the purpose of investigating the need of a military road. He would also survey and locate a military and post road from St. Louis, Mo., to Olympia, Wash.

Representative Lea of California proposes a highway for military coast defense purposes along the Northern Pacific Coast of his state, to be known as the Roosevelt Highway. Hawley of Oregon seconds this idea and calls for the construction of the Roosevelt Highway along the Coast of his commonwealth.

Senator Shields of Tennessee would authorize the Secretary of War to prepare a preliminary plan for a system of improved national highways, keeping in mind possible future military requirements.

Representative Robsion of Kentucky asks for an increase of \$1,000,000,000 to present Federal Aid Road Act appropriations; while Representative Ferris of Oklahoma believes that \$400,000,000 should be added.

Many of the Rocky Mountain states representatives have fathered measures which would provide for the sale of public lands for use in road improvement.

There are a number of bills which call for special appropriations for the construction of national park thoroughfares, memorial roads, and military highways.

Delegate Kalanianole of Hawaii contends that this territory should participate in the distribution of the money appropriated under the Federal Aid Road Act.

"It is interesting to note in analyzing the measures that the demand comes from all sections of the United States," says Chairman George C. Diehl of the A. A. A. National Good Roads Board, "showing that the movement for national highways is a genuine growth and that the roads question has passed beyond sectional stage."

The National Automobile Dealers' Association makes it a point to know what is going on in good roads development. If your association is unfamiliar with the bills before Congress write to St. Louis for information.

MORE GOOD ROADS MEAN MORE AUTOMOBILES.

ARE YOU DOING YOUR SHARE IN YOUR OWN CAUSE?

Federal Aid to Stop Car Thefts

UTOMOBILE owners, dealers and manufacturers are being asked to push a movement that will demand the enactment by Congress of legislation declaring motor thievery a Federal offense, with the Federal Courts and the Federal penitentiaries yawning open before the perpetrators of such crimes. Letters urging such enactment are being sent to trade interests and it is probable that some such law soon may be before the national body.

No steps can be taken too soon or too strong against the automobile thief. His work already has gained proportions much larger than is warranted and throughout the trade there is the feeling that strenuous efforts The plan suggested is that all cars and trucks be registered at the time of sale with the proper Federal authority, probably the district marshal. The theft of any registered car would become an offense under the

are needed at once to do away with this form of crime.

Federal law and no car could be sold unless it was accompanied by a certificate of registration, thus giving practically a bill of sale with the United States government.

It is an opportunity for some such body as the N. A. D. A. to draft a bill and have it presented in Congress, so framed that there will be benefit and not burden.

Then let's all work for it.

LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World. as many inquiries are answered by reference to previous issues

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Tractors on an 80-Acre Farm

Editor Motor World: Referring further to the article published in your paper of June 11, in which was stated that the tractor on an 80-acre farm would be impracticable, we are quoting verbatim from letters received this morning:

"I assure you if any 80-acre farmer came into my place wanting a tractor he sure would go home with a Fordson. I maintain that any farmer who has enough work for two horses can own and operate a Fordson with profit for himself.

"I have one owner who says he will take one team and a Fordson and run 200 acres without hired help.

"I realize that our farms are getting smaller each year; at the present time would say they average about 120 acres. and that we have got to be able to show the 80-acre man that he can operate a Fordson with profit. One way is to show that for every horse you can do away with you can place two cows. Cows are producers. Horses are an expense, an overhead or fixed expense. Granted you spend two hours a day taking care of your teams. At the end of the year you have spent over 700 hours just taking care of your horses, which is more time than the average farm horse spends in the collar during the year.

And here is another:

"We called on one tractor owner yesterday who has 85 acres of ground. He advised us that he would not farm if he could not have a tractor. He is always ahead of his work, does not need a hired man, is raising more and better crops and has disposed of all except two horses: when there is a day on the farm that there is no work for the tractor he uses it on the road grading and dragging for which he receives \$25 a day. One of the men that we sold yesterday plows only 60 acres of ground. We are going to sell tractors to many farmers this fall who plow less than 80 acres of land.— T. W. Meiklejohn Co., Fond du Lac, Wis.

In Spite of War

Editor Motor World: In reply to your subscription inquiry dated May 14, as to my position in the automotive industry, I have much pleasure in informing you that previous to the outbreak of hostilities I was repairs and service manager for Messrs. Wintringham & Mitchel, of Blenbein, N. Z., where I first took your paper and have had same for-

warded to me in whatever part of the world I have been in.

The last subscription was paid by my wife, Mrs. T. A. Robertson, and naturally you will not find any trace of her connection with the above industry. I had the misfortune to have been shot down over Germany in 1917, hence Mrs. Robertson's name appears. I think you will be quite satisfied with the above explanation and you will see that I have been a subscriber to your paper for some considerable time and hope to continue. I will forward my subscription for next year in due course—but in time.

I leave you to judge what I think of your paper for although I could not have same forwarded to me in Germany, I thought it worth while to continue my subscription and I was well repayed when I returned from captivity.—Gordon P. Robertson, Lieutenant, Royal Flying Corp.

Ready for Business

Editor Motor World: Having taken over the Compton Auto Repair Co., I would greatly appreciate your help in getting up a circular letter announcing the fact.

Having several years' experience in automobile repairing cars of all makes, can take care of any repair job that comes in the shop.

I have decided to specialize in three makes of cars, Stearns-Knight (fours and eights), Paiges and Franklins, which will give all types of motors.

If you can get up a letter from this I will appreciate it greatly, also a suggestion for a letter head.—George Siegle, St. Louis. Mo.

Letter for Compton

DEAR SIR: Do you drive a Stearns-Knight, four or eight?

Do you drive a Paige? Or, do you drive a Franklin?

Whatever you drive, you will want to take counsel with an expert on these cars once in a while when little difficulties develop.

We are specialists on the three cars named above. We know them from front to rear. We have had experience with them. And we shall be glad to put our experience at your disposal at any time.

Furthermore, the fact that we are experts permits us to get to the trouble at once and cut down the time required to make repairs.

Let us get acquainted with your car and yourself so we'll know each other better when the occasion necessitates.

Drive in some day this week.

English Dealer Says: "Keep Selling"

Editor Motor World: There are two things in the issue of the Motor World that has just reached me which are of great interest. The first is the article entitled "Wanted—Real Salesmanship," and the second is the Reilly story about "Keep on Selling." I regard the former as especially fitting conditions in this country at the present time. For example, we have been taking orders for cars since last November and, up to the time of writing, we have not yet seen a delivery. In these circumstances it takes some effort to keep the car sold.

We have been entirely successful in keeping the orders on our books, and have not had one cancellation due to delay in delivery. The only orders lost have been due to a substantial increase in the list price of the car and, in every instance, we have satisfied ourselves that the customer has cancelled simply because the higher list price is more than he could afford.

Our method of keeping these orders upon our books has been to select a good talking point of the car, and lay this before our customer whenever we have had the opportunity of seeing him or have had to write to him in connection with delivery delays. This constant bringing forward of the features of the car which make it a most desirable one to own has kept the customer anxiously awaiting delivery and, at the same time convinced that the car he has selected is the one he really must own.

We have found that when a customer decided to purchase, at the moment the decision is made, he is full of enthusiasm regarding the car and so we believe that if we are to keep his order this enthusiasm must be maintained. The way we have done it is to give him from time to time something fresh to be enthusiastic about. My advice to dealers is to study thoroughly the car they are handling, to select many of its good points and to fire these at the customer every time he shows impatience at not being able to obtain delivery.

Regarding the Reilly story, its advice to keep on selling is in my opinion a very sound one, and one we have intensively followed.

Although every car we are likely to receive from the manufacturers during the next eight months is sold, we are not relaxing our efforts to sell more, and, although it is very difficult to persuade any customer to wait such a long time for delivery, we have found it possible in a pleasingly large number of cases. Of course, conditions on this side help



us enormously. No manufacturer is delivering cars in quantity, and only two or three firms who have been fortunate enough to be kept on car production for the Government during the war period are making any deliveries at all. so that there is at the present time a really big shortage, and nearly every distri-buter has a well-filled order book.

We have come to the conclusion that although the demand is big a considerable proportion of it is fictitious, as it is represented by dealer's contracts which will never be adhered to; that is to say, every dealer is contracting for as many cars as distributers and manufacturers will let him have, and, in our opinion, the total number of cars contracted for in this way greatly exceeds the retail demand. As a result, in about six or eight months time, when most manufacturers are well into production, they will find that the dealers will not be in a position to take the cars they contracted for.

As distributers we have dealt with this problem in the following manner: Firstly, by selling direct to the public as much as possible and only accepting dealers orders providing they send us the name and address of their customer at the time of ordering, so that we are certain every order we book is an actual sale. All these orders are put on a list as and when they are received, and deliveries will be made strictly in accordance with the rotation of this list. By this means we hope to avoid finding ourselves heavily overstocked when the demand eases and also protect the manufacturers we represent against over-production.—S. Gordon Marshall, general manager, Leverett, Thorp & Kearton, Ltd., 122 New Bond St., London, W. 1, England.

Would You Be Interested?

Editor Motor World: Reading your editorial on the Flat Rate Plan, put into my mind the idea that perhaps herein was an opening for a new field.

The automobile game has in me an enthusiast, but somehow I never really started to make it earn my salary except for a short period when I was out and contracted then for repair work. I am, however, pretty well acquainted with ll types and makes of cars in their mechanical layout. At present I am developing an oil engine and assisting in the design of a new truck privately. However, this work finishes this month, when I hope to moter to Salt Lake City, then to Yellowstone, British Columbia and Portland, Ore.

Doing this means a cessation of business and I wondered if instead, or after, this it would be worth while specializing in the line of work you mention as an industrial garage engineer or such. It seems to me to be a fruitful field. What do you think? I am just at the make or breakage and full of ambition to succeed, hence as you can see I jump at all kinds of chances.—EFFICIENCY.

Cause of Wear on Right Front Tire

Editor Motor World: Being a tire man of some 10 years' experience, I would like to help you out on the question in a recent issue of your magazine as to why the right front tire of a certain roadster showed more wear than the left. I have seen this happen where there were two tires of the same make and tread style, with the steering wheel on the right side, and have noticed this condition to be much worse in localities where the roads are crowned to shed the water, such as some of our Middle West roads. These highways are usually of a good grinding surface and one drives to the right of the road most of the time as there are usually two beaten tracks.

In order to keep the car in a straight line, one must keep steering to the center of the road. This throws the left tire in a straight line or a little out. It puts the right tire one-half inch or more on

the grinding surface and, being considerably lower from the tilting of the car, gets more weight and also more loose stones which roll towards the ditch .--A. Clark, S. & S. Tire Co., Los Angeles,

Illinois Taxes Vehicles to Repair Streets

BLOOMINGTON, ILL., July 18-An epidemic of taxation is spreading through Illinois. Nearly every city is figuring upon some means of increasing the revenue, and, unfortunately for the owners of motor vehicles, are picking upon them hungrily.

Aurora has adopted a new wheel tax which costs the owner of each motor truck \$6 to \$20, according to tonnage, while the owner of automobiles must pay \$5 to \$10, according to horsepower. The tax on motorcycles is \$2. Horsedrawn vehicles do not escape, \$3 to \$6 being charged for such.

The new ordinance of Decatur, just adopted, calls for a tax of \$10 to \$15 for motor trucks, and \$5 to \$10 for passenger cars. Taxicabs are charged \$5: street cars \$15; ad horse-drawn wagons \$4 to \$6, in accordance with size. All revenue derived from this taxation will be kept in a special fund and used solely for the upkeep of the streets.

Similar ordinances are now under consideration by Bloomington, Peoria, and Springfield. Most of the cities are patterning their local laws after the Chicago ordinance which has passed the test of the supreme court. The highest courts have held that the city taxation may be collected in the city in which the car owner resides. The fact that many cities have been compelled to neglect their streets, due to lack of money, following the abolition of the saloon, and the stipulation that all money so derived will be utilized upon the streets, has a mollifying effect in most instances.

N. A. D. A. Officers on Tour

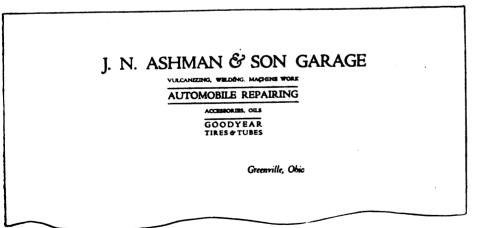
ST. LOUIS, MO., July 19-F. W A. Vesper, of St. Louis, president of the National Automobile Dealers' Association, has gone on a trip to the Pacific Coast. He will speak before the Washington Automobile Trades Association at Yakima, July 27, and later will speak in Spokane, Portland, Ore., San Francisco and Los Angeles.

C. A. Vane, assistant business manager of the N. A. D. A., went to Birmingham this week to attend a meeting of the Alabama Automobile Trades Association, of which R. Y. Barr of Troy, Ala.,

is president.

Automotive Corp. in Toledo

TOLEDO, July 18-The Automotive Corp. has moved its general offices from Fort Wayne to 403 Madison Avenue, this city, about forty miles nearer its factory at Napoleon, Ohio. New factory buildings will be started here during the summer.



Editor Motor World: We are a subscriber to the Motor World and have seen letters from different readers asking that you design for them letterheads. Now we wish you would make a good one for us. We operate a garage at Stelvideo, Ohio, and do automobile repairing and machine work. We have a stock of accessories and handle Goodyear tires and tubes, also gasoline and oils, and do vulcanizing. Hoping you will publish the letterhead at the earliest possible moment and oblige.—John N. Ashman & Son, Stelvideo, Ohio, P. O. Greenville, Ohio, Route No. 6.

THE LAW

By George F. Kaiser

PERPLEXED

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Lien Laws of All the States Corrected and Revised

THE reports of the various secretaries of state would seem to indicate that the effort to have adequate garageman's and repairman's lien laws passed at the various sessions of the legislatures this year has been an unsuccessful one, as usual.

Although at various times during the year I was consulted by dealers who were anxious to have laws favorable to themselves passed in their respective states, to date, I have heard of no case where the effort met with success. In Kansas, Indiana, Tennessee and Missouri the efforts of those in the trade appear to have been equally unsuccessful.

In a few states like Pennsylvania the legislatures have not yet adjourned, but there appears to be but slight hope that any beneficial legislation will be enacted.

The states having a statutory garageman's lien law are still in the minority. What is the matter with the garagemen and repairmen in all the other states which have no such badly needed legislation?

ALABAMA

Mechanics who contribute labor and materials toward the repair and improvement of vehicles have liens for their charges, which liens must be enforced by attachment within 6 months after the last item of naterial is furnished or the last item of labor is performed. Section 4785, Code of Alabama, 1907.

ALASKA

Persons who bestow labor on an article of personal property at the request of the owner have a lien upon the property on which the labor was bestowed and may retain possession of such property until their charges are paid and sell it at public auction if their charges are not paid within 30 days, provided, however, that 30 days' notice is given before the sale. The claim must be filed within 60 days after the completion of the work. Laws 1915, Chapter 5. Chapter 5.

ARIZONA

Mechanics and artisans have liens for the amount of their charges for work done on personal property, but this lien expires in 6 months, unless suit is instituted. Sec-tion 3673, Chapter 5, Revised Statutes.

This State has no specific garageman's lien law, but has a provision that mechanics, blacksmiths, wheelwrights and material men have liens for labor and materials furnished in repairing vehicles. The Supreme Court held, in the case of Sheldon vs. Little Rock Auto Co., 146 S. W., page 129, March 25, 1912, that a garageman is a wheelwright under this provision of law and has a lien for labor performed by him and materials furnished in repairing a motor car. He must file an itemized statement of his account with the justice of the township where the debtor resides or where the property on which the lien is claimed is located, which description must be verified by affidavit. Kirby's Digest, Sections 5013, 5016.

CALIFORNIA

Every person who, while lawfully in possession of an article of personal property, renders any service to the owner thereof by labor or skill employed for the protection, improvement and safe-keeping or carriage, thereof, has a special lien thereon, dependent on possession for the compensation, if any, which is due to him from the owner for such services; the person who makes, alters or repairs any article of personal property at the request of the owner or legal possessor of the property has a lien on it for his reasonable charges for the balance due for such work done and materials furnished and may retain possession of the property until the charges are paid . . and garagemen shall have a lien, dependent on possession, for their compensation in caring for and safe-keeping motor cars. Section 3051, page 1010, Supplement to Notes and General Laws of California, entitled "Liens on Personal Property for Services Thereon."

COLORADO

Mechanics have liens upon articles of personal property when these are made, altered or repaired at the request of the

CONNECTICUT

Garagemen and repairmen seem to have no liens in this State for storage, repairs, etc.

DISTRICT OF COLUMBIA

Any mechanic or artisan who makes, alters or repairs any article of personal property has a lien thereon for work done or materials funished and may retain such article until his charges are paid. If they are not paid within 6 months he may sell such property at public auction.

Any person has a lien on personal property when he performs any labor upon or with any engine, machine, apparatus, fix-

ture or implement, or upon such engine, machine, apparatus, fixture or implement, and for manufacturing, repairing and altering articles or things of value. Suit must be brought on claims of this kind within 12 months from completion of the work or the furnishing of the last item of material. of material.

GEORGIA

This State has no specific statutory garageman's lien law, but mechanics have liens on personal property upon which they have worked. In the case of Boughman Automobile Co. vs. Emanuel, 73 S. E. 511, Jan. 10, 1912, a garageman's right to a "mechanic's lien" for labor performed and materials furnished in repairing a motor car was recognized.

IDAHO

Persons making, altering or repairing an article of personal property at the request of the owner have a lien for reasonable charges and may retain possession of the property. If the charges are not paid within 2 months, the garageman may sell the property at public auction on 10 days notice after advertising in a newspaper in the county where the work was done or posting a notice in three of the most public places, if no newspaper is published there.

Garagemen shall have a lien for proper charges due for repair materials and expenses incurred at the request of car or truck owners when motor vehicles, parts or accessories are sold on a conditional bill of sale, and the seller remains unpaid, if the conditional sale contract has been filed in the recorder's office in the county where the sale took place before the lien attaches.

Every person, firm or corporation or others engaged in storing or furnishing supplies for or repairing, automobiles,



motor trucks or motorcycles shall have a lien for storage charges for furnishing supplies and for repairing.

Within 60 days after the charges become due, notice of intention to hold a lien must be filed in the recorder's office of the county where the work was done. This notice must contain the amount of the claim and give a description of the vehicle. Liens may be foreclosed in the Circuit Court of the county where the work is done by filing a complaint within 1 year of the owner's refusal to pay the charges due. Attorney's fees are allowed the dealer when action is brought to enforce the lien. Chap. 167, Acts of 1915.

IOWA

Persons having personal property in their possession to which they have im-parted additional value by their labor have a lien for their charges thereon where there is no special contract for such lien.

A first and prior lien is hereby created in favor of any blacksmith, horseshoer, wagonmaker, garageman or any other person upon any goods, chattels, or other vehicles or automobiles and any farm implements of whatsoever kind which shall have come into the possession of such blacksmith, horseshoer, wagonmaker, garageman or any other person for the purpose of having work on said property, or repairs, or improvements in anywise appertaining thereto. The lien shall amount to the full amount and reasonable value of the services performed, and shall extend to and include the reasonable value of all material used in the performance of such services. such services.

There seems to be only a common law lien in this State.

All owners, operators, or other persons operating a garage, or other place where automobiles, or other machinery are repaired, shall have a lien or privilege on the automobile or other machinery repaired, for the repairs and labor performed on the same; provided, that the privilege herein granted shall not exist for a longer period of time than 90 days after said repairs are made, and, provided further, that this privilege shall have no effect against bona fide purchasers of said machinery, without previous notice.

Persons have a lien for labor expended in the improvement of personal property. At a recent session of the legislature an act was passed which provided that whoever puts a motor car in a public garage or other place where cars are stored for hire, and without having an express agreement for storage, procures accessories or accommodation for himself or said car, and with intent to defraud the owner or keeper of said garage, removes or causes to be removed any such car from such garage without paying the reasonable charges due for repairs, supplies, accessories or accommodation furnished thereon, shall be punishable by imprisonment not exceeding 3 months or by a fine not exceeding \$100. In order for the owner or keeper of such a garage to obtain the benefits of this act, a printed copy must be posted up in some conspicuous place in the garage. Chapter 214, Laws of 1913, Maine.

MARYLAND

Garages.—When motor vehicle is left with owner's consent for storage, furnishing of accessories or tires, dealer has lien and may retain possession until paid. Lien is superior to conditional bill of sale, bills of sale, chattel mortgages and other liens not executed and recorded, but interior when properly executed and recorded. Surrender of motor vehicle means loss of lien as against third persons, but not as against owner. In case of dispute lien to continue until final decision is rendered by court. Chapter 403, Laws of 1918.

(Washington County.) Motor vehicle is left for storage, alterations or repairs, or for furnishing of parts, accessories, tires, gasoline, oil, electric current, towage or other material or service, dealer, etc., has lien and may retain possession until paid. Superior to unrecorded bills of sales and chattel mortgages, etc., but inferior to recorded ones. Surrender of vehicle extinguishes lien as against third persons, but not as against owner. In case of dispute lien to remain until final decision of Court. Owner may get possession upon

paying what is admitted to be due and giving bond for balance.

Procuring any of above or fraudulently removing car is punishable by fine not more than \$100, imprisonment for not more than 6 months or both. Removal of car without knowledge of proprietor or manager is prima facie evidence of fraud. Chapter 465, Laws of 1918.

MASSACHUSETTS

Persons maintaining public garages for the storage and care of motor cars and other motor vehicles which are brought to their premises or placed in their care by or with the consent of the owners thereof, or with the consent of the owners thereof, shall have a lien upon such motor cars for proper charges due them for storage and care. Chapter 300, Acts of 1913 of Massachusetts, being entitled "An Act Relative to Liens by Persons Maintaining Public Garages."

MICHIGAN

All garagemen who furnish labor, gasoline or supplies by express or implied contract have a lien on all motor cars, etc.,
stored, maintained and supplied or repaired or furnished with gasoline, electric
current and accessories when these things
have been furnished at the request or with
the consent of the owner. The vehicle
may be detained at any time within 90
days after the last item of work was done
or the last item of material was furnished. Dealers may advertise if they are
not paid within 90 days after serving a
claim of a lien and an itemized statement
of the account and can then sell the property like at a chattel mortgage sale. Dealers must comply with all the laws of State,
citles, towns, etc., to avail themselves of
this lien law. Michigan, 1915, Law.

MINNESOTA

Persons, altering, repairing or bestowing labor on any article of personal property at the request of the owner or legal possessor have a lien for their just and reasonable charges. If they are not paid within 90 days, they may sell the property at auction on giving notice. They also have a lien for storage.

Garagemen have a lien for labor performed and materials furnished in repairing motor cars under Code of 1906, Section 3075, and may retain the property in their possession and sell it. This right is superior to that of a person who sells a car on a conditional bill of sale and retains the title. Decided in J. A. Broom & Sons vs. S. S. Dale & Sons, 67 Southern 659, March 15, 1915.

MISSOURI

There is a common law lien on chattels which have been improved by the labor of a mechanic if they are retained in his possession.

MONTANA

Every person while lawfully in possession of an article of personal property rendering service to the owner by labor or skill employed in the making, repairing, protection, improvement, safekeeping or carriage thereof has a special lien dependent on possession for compensation due. Mont. Code 5005.

Any person who makes, alters or repairs, or in any way enhances the value of any vehicle... at the request of or with the consent of the owner, shall have a lien on such vehicle... while in his possession for a reasonable or agreed charge for the work done or materials furnished; and shall have the right to retain said property until said charges are paid. If possession of the property is parted with, the lien may be retained if a certificate is filed in the office of the clerk of the county where the work was done or the material was furnished, or the property was kept, together with a verified statement of the items of work, etc., and a description of the article repaired ... within 60 days after the last item was performed. Chapter 39. Revised Statutes of Nebraska. 1913, paragraphs 38-41, Section 19, entitled "Artisans" Liens."

All garagemen, repairshops or places for buying and selling automobiles have a lien upon motor vehicles for the sums due for storing, maintaining, keeping or repairing them or for labor furnished thereon or for furnishing accessories or supplies therefor, and may detain the car or truck until the charges are paid. This lien is not lost by allowing a motor vehicle to be

removed as the person having the lien may seize the car or truck wherever it may be found without the State of Nevada. This lien is secondary to conditional bills of sale, leases and mortgages. Action to enforce the lien must be brought within 20 days. Where a motor vehicle is sold, the lien terminates unless the buyer is notified within 40 days from the date of sale. Incurring a bill upon a motor vehicle without the authority of the owner or by misrepresentation is a misdemeanor, punishable by a fine of not more than \$100 or 30 days in the county jail, or both. Chap. 213, Laws of 1917.

NEW HAMPSHIRE

There is a common law lien when a person has lawful possession of personal property for any expenditure made by him or labor performed at the request of the owner.

NEW JERSEY

Garagemen, repairmen, etc., may detain vehicles in their possession against which they have charges for storage, repairs, gasoline, accessories, etc., until they are paid. The llen is not lost if motor cars are removed from their possession, and they may be seized wherever they may be found in any part of New Jersey.

Detained cars may be sold at public auction after 30 days if the sale is first advertised in a paper in the city or town where the garage or repairshop is located, and 5 days notice is set up in five of the most public places. Chapter 312, Laws of 1915, New Jersey, entitled "An Act for the Better Protection of Garage Keepers and Automobile Repairmen."

NEW MEXICO

Persons who store, maintain, keep or repair motor vehicles or furnish gasoline, oil, lubricants, accessories or other supplies have a lien for their charges and may detain the motor vehicle until the sum due is paid. This lien is not lost by allowing the property to be removed. To sell the property suit must be instituted and judgment recovered, after which it may be sold on execution. Notice of the claim showing the amount of indebtedness and for what it is due should be served on the owner and if the charges are not paid within 10 days the property may be sold. The sale must be advertised and the property sold at public auction after 20 days notice. The proceeds of the sale after the lien charges and expenses have been paid are to be refunded to the owner. Chap. 65, Laws of 1917.

NEW YORK

Garagemen have a lien on motor cars for storage, repairs, gasoline and other supplies furnished with the consent of the owner whether a conditional vendee or a mortgagor in possession, and may detain the property if in their possession until their charges are paid. Section 184, Lien Law, Consolidated Laws of New York.

NORTH CAROLINA

Mechanics, etc., have a lien on articles of personal property which they repair or alter. This lien must be filed within 12 months after the completion of the work. Six months additional are allowed to institute an action to enforce the lien.

NORTH DAKOTA

Mechanics have liens for the amount of their charges for labor performed upon articles of personal property.

Blacksmiths, wheelwrights, horseshoers, tc., have liens for work done or articles repaired.

OREGON

Every automobile repairer who has expended labor, skill and material on any chattel at the request of the owner has a lien for the contract price notwithstanding possession has been surrendered to the owner. 164, P. 714.

PENNSYLVANIA

Mechanics have a common law right to a lien for labor performed by them. There is an act in this State entitled "For the Protection of Keepers of Garages or Automobile Shops," providing that every person who shall place in any garage or repairshop any automobile for storage, repairing or garage service, and shall surreptitiously remove the automobile or cause it to be removed by any false pretense or device with intent to defraud, shall be adjudged guilty of a misdemeanor (Continued on page 48c)



Showing Trucks and Tractors to the Farmers





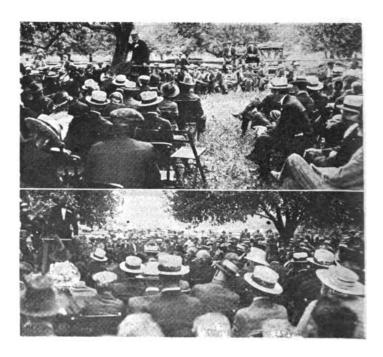








ON this page are pictures illustrating the manner in which New Jersey truck and tractor dealers cashed in on a meeting of farmers—potato growers. The showing was held at the annual meeting of the Holmdel Potato (Pub. July 12, as related in last week's issue of Moton World, in an apple orchard near Holmdel. The size of the crowd is indicated by the number of cars shown parked in one of the pictures. The meetings, speakers and deep interest are illustrated in other pictures, some showing the trucks displayed in the orchard or the tractors at work. Will there be any meetings in your section. And do you sell trucks or tractors?



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The RETAIL NEWS

NORTHWEST

independent Battery Co., Des Moines, Ia., has opened a service station at 304 Grand Street, and will specialize on battery and electrical work.

H. W. King, Des Moines, Ia., has opened a tire shop at Twelfth and Locust Streets and has leased the building for a term of years.

H. C. Payne Auto Co., Boone, Ia., has taken the Maxwell agency for this territory.

Elmer L. Hall, Fort Dodge, Ia., has opened an Exide battery service station here at 16 North Twelfth Street.

independent Battery Co., Fort Dodge, Ia., has moved to 21 South Twelfth Street, where they will have Prest-o-Lite service.

Carlson Bros.' Repair Shop, Boone, Ia., is now located at 611 Story Street.

iowa Tire Sales Co., Boone, Ia., will open a salesroom and service station at 7th and Story Streets.

The Lincoln Highway Garage, Boone, Ia., G. A. Keenan, proprietor, is enlarging quarters and will occupy the basement and first floor of its present quarters.

M. E. McHenry, Fort Dodge, Ia., has opened a garage at 424 First Avenue South, under the name of the Ffficiency Garage.

The Hart Parr Tractor Agency, Fort Dodge, Ia., has been opened on First Avenue South.

Paramount Motor Co., Fort Dodge, Ia., has closed its shop and service station.

Kautzky's Tire Agency, Fort Dodge, Ia., is moving to 522 Central Avenue.

Fisher Tire Service Co., Des Moines, Ia., opened a service station and salesroom at \$78-584 Seventh Street.

Day-Sayre Co., Des Moines, Ia., has opened a battery service station at 547 Seventh Street

Holtberg & Hanselman Auto Co., Des Moines, Ia., has been succeeded by Holtberg & Judd Co., which will retain the quarters at 1217 to 1221 Walnut Street.

Oakland Motor Car Co., Des Moines, Ia., is opening a branch on Locust Street and H. E. Mahaffy has been appointed manager.

A. B. Carter, Lawrence, Kan., has opened a tire and battery service station at 1009 Massachusetts Street.

H. W. Neuman Machine Co., Davenport, Ia., is Jordan distributer in that territory.

Earl N. Manbeck, D. R. Chapman and Marvin Wright, Cedar Rapids, Ia., have organized a company to handle Maxwell cars and trucks in this territory. They are located in the building formerly occupied by the Russell Motor Car Co. Manbeck is president of the Manbeck Motor Sales Co. Chapman was formerly sales representative of the Maxwell Motor Sales Co., and Wright was formerly Maxwell supervisor.

Manbeck Co., Mason City Ia., has been organized by Earl K. Chaffin and G. O. Jamesson to take over the Maxwell franchise for Mason City and adjacent territory with headquarters at Mason City. The company controls Maxwell distribution in sixty counties in Iowa.

Lewis Garage & Machine Shop, Prosser, Neb., has been opened here.

A. W. Sallender, Fort Madison, Iowa, has put up a garage 50 x 187 ft. to sell Overland cars.

Chas. E. McKeehan & Co., Atlantic, Ia., has opened a tire service station at 511 Chestnut Street, and will sell Gates Half Sole tires.

C. F. Johnson and A. S. Walker, Atlantic, Ia., have opened an Exide battery service station. Both men have just been released from service.

Roy Kirlin, Stuart, Ia., has returned from service and opened a garage and sales agency. He will handle the Hupmobile.

Bailey & Ledgerwood, Atlantic, Ia., has opened a service station and garage here.

Electric Equipment Co., Atlantic, Ia., has opened a service station here, under the management of J. E. Southwick.

Goold Lindsey Auto Co., Atlantic, Ia., has opened a garage and service station here.

Allen Hays Auto Co., Topeka, Kan., has taken the agency for five counties for the Comet car, and has opened an office and salesroom at 926 Kansas Street.

Raemer Motor Co., Topeka, Kan., has opened a sales and service station at 115 East Seventh Street. It will handle Stephens Six and the Moline tractor.

Fort Dodge Rubber & Vulcanizing Co., Fort Dodge, Ia., has opened a salesroom and repair shop at 767 First Avenue South.

Guarantee Tire Sales Co., Fort Dodge, Ia., F. O. Peterson, manager, has opened a service station and salesroom on the Square.

Northern Machinery & Supply Co., Fort Dodge, Ia., has opened a salesroom and service station at 413 First Avenue South, where it will handle Case tractors.

Service Tire Co., Fort Dodge, Ia., has been purchased by C. W. Nelson, who will continue at 422 Central Avenue.

Fort Dodge Automobile Co., Fort Dodge, Ia., Heath Bros., owners, has added an accessory department and a solid tire service station in charge of H. R. Heath Extensive alterations are being made in the salestroom, so that trucks as well as passenger cars may be displayed. The company has taken the agency for International and All American trucks for this territory.

Cowdrey Motor Car Co., Topeka, Kan.. has taken the agency here for G M C trucks. It is open for a passenger car agency for this territory.

McCromick Motor Co., Topeka, Kan., has opened a Chandler agency here under the management of M. F. Hauserman, covering three countles from here.

Topeka Veile Co., Topeka, Kan., opened sales room and service station at 118 W. Fifth Street. Perkins & Tillman are managers. It also has the agency for Fulton trucks for four counties.

Electric Starter & Motor Service Co., Des Moines, Ia., has opened at 13th street between Locust and Grand. with George L. Gaskell president and engineer and F. W. Humrich, superintendent.

J. A. Olson, Culbertson, Mont., has taken over the business conducted by the former firm of Butts & Olson, operating Motor Inn.

H. J. Berg, Martindale, Mont., has bought the Wade Garage from William Wade and will continue its operation.

Joe Schuetz, Holton, Kan., has opened a new garage in the building just vacated by S. S. Freeman.

L. C. Horning, Nashua, Mont., has sold his garage and light plant to W. D. Thompson of Great Falls, Mont.

H. A. Cleveland, Red Stone, Mont., has bought the interests of L. B. Bradstad in the garage business there.

William Schneider & Sons, Albany, Minn., have bought the Hansuer & Bonigen garage business and will continue the business.

Carl Poison, Hammond, Minn., has bought the Herman Cordes garage building and will open it as a repair shop.

The Sauk Rapids Vulcanizing Co., Sauk Rapids, Minn., has been opened by William Bursch and E. C. Levendowski, who have bought the Rianga & Spranger shop.

Raymer Parent and A. N. Olson, Argyle, Minn., have bought the garage and accessories stock/of Lewis O. Setterholm.

J. P. Brewer and H. S. Gilbert, Pine River, Minn., have bought the garage business of B. A. Michiner and will erect a new building.

Boyle & Mather, Gilbert, Minn., have bought the Gilbert Garage and will reopen it.

Ponsford Garage, Ponsford, Minn., has been sold to Wilson Garage Co. of Park Rapids, Minn., which will operate it under management of Albert Allen.

Joseph Tomforde, Zumbrota, Minn., has sold his interest in the automobile and livery business of Karsten & Tomforde to his partner, M. Karsten.

Seavey-Maiers-Schomer Co., St. Cloud, Minn., has succeeded the Paige-Schomer Motor Co., Seavey & Maiers have entered the firm.

M. L. Nicholson, Brewster, Minn., has bought the Newton Garage.

Phil C. Holgate, Duluth, Minn., former local manager for the branch of the Northwest Cadillac Co. of Minneapolis, has associated with Freeman Randall to open a garage and service station at 106 East Superior Street for Auburn and Stearns-Knight cars.

The Goodyear Tire & Rubber Co., St. Paul, has reopened its office, at 142 West Seventh Street, which has been closed eleven months.

The St. Paul Auto Radiator & Mfg. Co., St. Paul, has opened a factory and repair shop at 159 West Fourth Street, with W. J. Belina as manager.

The Cherokee Auto Co., St. Paul, is a new corporation with \$50,000 authorized capital. G. N. Gibbs and Paul Broderstrom of St. Paul are the organizers.

The General Auto Sales Co., Inc., St. Paul. has taken over the building occupied by the Fisk Rubber Co., Sixth and Exchange Streets, where the Chevrolet Service Station will be conducted. The company will operate the retail business of the Fisk company and service. The Chevrolet sales and display room will continue at 166 West Sixth Street. R. A. Briggs is president for the new company and F. M. Tolf is secretary.

The Northwest National Motor Car & Vehicle Co., Inc., St. Paul, which will distribute the National car in the Northwest, has leased a building at Seven Corners, fronting Seventh Street and Main Avenue. The company will maintain a display room, service and repair department.

A. H. Clark, St. Paul, distributer for the Holmes car, has taken the agency for the International truck, at West Seventh Street and Exchange Street, where the Holmes is displayed also.

Forest Halgren, Bemidji, Minn., has taken



over the tire department of the C. W. Jewett Company garage and will operate it.

H. F. Meyer, Sleepy Eye, Minn., has traded his farm in for the East End Garage belonging to Sol Wooldrik, taking possession Aug. 1.

PACIFIC COAST

P. E. Hennis, Gardena, Cal., has secured the Chevrolet agency for his territory.

W. T. Spears, Gardena, Cal., recently entered into partnership with J. M. Woodruff, Ford dealer.

Lichtenberger-Ferguson Co., Los Angeles, Cal., formerly known as the Los Angeles Saddlery & Finding Co., has moved to a 3-story building at Third and Los Angeles Streets.

The V.ogue, Los Angeles, Cal., is the new name of the garage formerly known as the Weber Garage, and run by Charles W. Ball and William F. Lanctot at 544-546 Figueroa Street

William Tibbitts, Los Angeles, Cal., has opened a tire and vulcanizing shop at 929 West Seventh Street.

Anaheim Auto Co., Anaheim, Cal., is the new name of the Central Garage, which has recently been acquired by George Goodrum, formerly dealer in Marshfield, Ore. He has the Buick agency for this territory.

MIDDLE WEST

John B. Castino will be district manager in charge of the Chicago office of the SKF Industries, Inc., recently opened at 1314 Marquette Building.

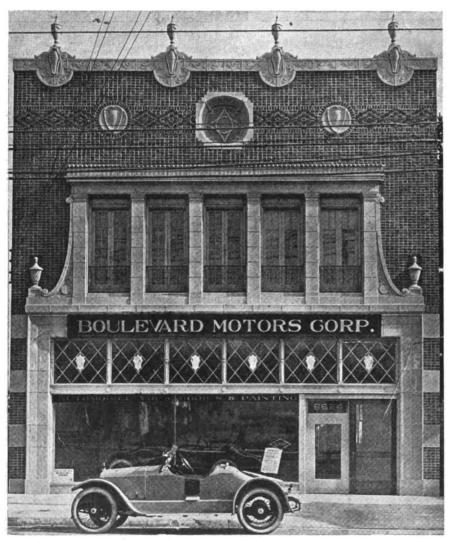
Harold J. Vogler has been appointed general sales manager of the American Motor Truck Co., Newark, Ohio. A graduate engineer and practical shopman, Vogler became a retail salesman and served in the wholesale and retail branches of the Penn. Maxwell and Locomobile companies. He held an army commission during the war.

Ben Johnson, Davenport, Iowa, will do a general repair and storage business at 518-520 Harrison Street.

O. W. Morris, Williamsville, Ill., has sold his garage to A. B. Singer and son, of Springfield, Ill., who will hereafter operate it. The new owners plan to add the agency for motor vehicles of all kinds.

C. L. Burkhalter and J. J. Burkhalter, Galesburg, Ill., have opened a new tire and accessory store at 63 South Prairie Street and will do a general service business.

The West Side Motor Car Co., Chicago, Iil., has been incorporated with capital stock of \$15,000. A garage and sales agency will be operated at 5567 South Michigan Avenue. Incorporators are J. G. Massey, W. D. Reid, and E. E. Gaertner.



Unusually pleasing in appearance is the new home of the Boulevard Motors Corporation, recently completed at Hollywood, Cal. Architecturally the structure is quite different from buildings customarily erected for the purpose in small cities. The Boulevard Motors Corp. represents the Templar and Dorris lines of passenger cars and in addition operates a shop for body and top making and painting. It is a new concern

Lucius French, advertising manager of the National Motor Car & Vehicle Corp. has resigned to become secretary of the Western Oil Refining Co., Indianapolis. Mr. French was the first advertising manager of the Cole Motor Car Co., ten years ago and held a similar position for the past five years with the National company.

R. C. Duffus will be in charge of a subbranch of the Detroit branch of the Packard Motor Car Co. in Kalamazoo, for Kalamazoo and Calhoun counties. A building will be erected at 523-527 West Main Street.

Arthur L. Knack, Detroit, has just opened a third garage and service station in that city, for Chevrolet and Buick cars.

The Siggens Sales Co., Detroit, has opened a distributing agency and retail sales room for the Penneypacker top converter. D. J. Siggens, for seven years with the Siggens & Bowles Advertising Co., is president and general manager, and George R. Siggens is sales manager.

EAST

Nagy Bros. have opened the Linden Garage at North and Linden streets, Bethlehem, Pa.

Carthage Motor Car Co., Carthage, N. Y., recently organized and incorporated, is erecting a 2-story building at the corner of State and School Streets, 58 x 118 ft.

H. G. Stiles, former New England sales manager for the Indiana Motor Truck Co., has become sales manager of the Kalamazoo Motors Corp.

A. S. Edwards, Stepney Depot, Conn., will distribute Armleder motor trucks in this territory.

Utica Standard Service Co., Utica, N. Y., is distributer for Armleder motor trucks in that territory.

Cohen Motor Co., New Britain, Conn., will distribute Armleder motor trucks in this territory.

F. I. Reynolds, for many years with the United States Tire Co., New York, as sales manager of pneumatic tires, has been appointed sales director of the Keystone Tire & Rubber Co., New York. He was previously connected with the Diamond Rubber Co. as sales manager and after its absorption was with the B. F. Goodrich Co., Akron.

Rube E. Allmart, Eastern district sales manager of the Westcott Motor Car Co., Springfield, Ohio, was killed in the New York Central wreck at Dunkirk, N. Y., July 1, in his thirty-fifth year.

NEW GARAGES

Marston & Larson.....Boone, Ia.
Zuver Bros.Los Angeles, Cal.
Apperson Nunemaker Co..Cedar Rapids, Ia.

CLEVELAND, July 14—The following service stations of the Willard Storage batteries have recently been installed: Valley Electric Co., Holyoke, Col.; Davies & Adams, Kimball, Neb.; Sidney Battery Service Co., Sidney, Neb.; Ontario Battery Service Station, Flint, Mich.; A. S. Hills, Ortonville, Minn.; Stower Battery Co., Huron, S. D.; Simonds Garage, Madison, Me.; Holdenville Battery Co., Holdenville, Okla.; Salisbury Battery Service, Salisbury, N. C.; Maysville Machine & Iron Works, Maysville, Ky.; Fayette Battery Service Co., Uniontown, Pa.; Thomas Storage Battery Co., St. Thomas, Ont., Can.; Kingsburg Battery & Vulcanizing Works, Madera, Cal.; Selma Battery & Tire Co., Selma, Cal.; Milton Electric Service Station, Milton, Ore.



How Tractor Demonstrations Can Be Made Valuable

(Continued from page 9)

to get a real line on any machine. One day some of the tractors were finished with their band-box demonstration in 15 minutes. Many finished in half an hour and before you could travel from one end of the field to another the tractors you wanted to see had finished their jobs.

There were not a few tractors at the demonstration that dealers might have wanted to get a real estimate on how they performed, but that was impossible because they did not perform long enough. A few broke down in the 90 minutes of test, and what some others might have done had they had to plow ten hours straight—as they would on a farm—cannot be told.

Suffice it to say that in no respect did the demonstrations bring out anything worth while. They were about as sensible as a 50-mile non-enginestop run would be for the motor car.

Dealers must beware of any strong sales talks that are based on the demonstrations. The tractors just plowed—and any tractor should be able to do that.

The demonstrations were a pronounced reflection on the tractor industry.

On dealers and distributers is going to devolve the major task of merchandising tractors, and they should be careful as to the kind of demonstrations they stage. Tractor selling is perhaps more local in character than selling motor cars or trucks. Local demonstrations are what the dealer must rely on. He should have a say in staging them. He should see to it that sane rules are used. He should see to it that the demonstrations are constructive rather than destructive.

A local demonstration, let us say for a county, should be a two-day affair. You can have as big an attendance at a two-day county demonstration in Kansas, Nebraska, Iowa and other states as there was at the National demonstrations at Wichita.

A two-day demonstration really gives some clue as to what a tractor will do, whereas the acre or hour demonstrations of last year really told nothing. When it was attempted to measure the fuel consumption in an hour test it was not in one case out of a hundred that the figures were reliable and of value.

If you stage a two-day test divide your time up about as follows:

FIRST FORENOON—The entrants get their tractors and plows ready. The fuel tanks are filled and records made and observers appointed and placed. It is a get-ready period.

FIRST AFTERNOON—Start plowing

at 1 o'clock and continue without stop until 6. Five hours of steady work will give you a good line on the machines. The observers can note every stop made, record its length and state what it was for. There can be a record of those that have to add water or oil during the five hours.

FIRST NIGHT—Put the tractors in some open space surrounded by ropes so that no one can reach them. Leave them in charge of a policeman or two, or a special committee. Do not let any repair work be done at night. They can be greased and filled with water and fuel. A record of all things should be taken.

SECOND FORENOON—Have continuous plowing from eight until twelve, the same as on the first afternoon and under the same rules.

SECOND AFTERNOON—Give this over to fitting the land previously plowed and sowing it if ready. Have your observers record the speed of all machines. Record the fuel used. Record the stops and note the reasons. Take the exact time each machine needs for its job. Make the different machines work at the speed they are advertised to work at. See that the work is satisfactorily done.

REPORTS—When the demonstrations are over the committee in charge should

compile a complete record of the demonstrations and give a copy to each entrant. A copy of valuable facts such as speed of work and fuel used could be given to the press.

SUGGESTIONS—It is very difficult for a group of distributers to run their own tests. They should get some disinterested party to take charge. Sometimes the county agent is only too glad to do the work. He is a logical person but he may not be in any sense well qualified to handle the job. Too frequently where distributers try to do it all themselves they get into a jam. The affair ends in a scrap with everything connected with it discredited.

Tractor demonstrations must command respect. They must be handled so as to be above criticism. The results must be reliable.

It is only such kinds of demonstrations that are worth while. The others are just useless expenditures of money. They breed ill-feeling. They are destructive in that they give out misleading information.

BETTER HAVE NO DEMON-STRATIONS THAN MISLEAD-ING ONES.

Why Wichita Demonstration Was Useless

(Continued from page 8)

ing backward and not forward. The consensus of opinion is that this national tractor demonstration has been of little use to most of the participants. The attendance has not been anywhere near what was expected and the lack of dealers and distributers has been a serious drawback.

Officials in the smaller companies are loud in their protest that the big concerns get all the benefit, if any, and the little ones foot the bills and get nowhere.

Mere plowing exhibitions seem to have lost their power to attract and one very good evidence of this was that during the time of the actual demonstrations on the field, there seemed to be as many people in the exhibit tents as at other times. In other words, the show, as distinct from the demonstration, pulled just as much interest as the demonstration.

Almost every farmer in the Kansas wheat belt has seen tractors plowing, and that the tractor will plow is a well known fact. If any demonstrating is to be done, it should show how much per acre or per hour the machines will do. The new models and the new features of the old models excited more interest than the tractors moving around the field.

In the East, where tractors are not so plentiful, a mere plowing exhibition may still create interest, but in the West such demonstrations are superfluous.

What really interested more people than the plowing demonstrations was the actual work being performed by the tractors along other lines. Hay baling, hay loading and other belt work always drew a crowd, whereas the machine plowing did not begin to attract the attention.

The increased number of machines shown at the exhibits for belt work indicates clearly that the farmer and dealer realize that the tractor is for more than plowing and that its limitations are only in the mechanical efficiency and power.

The week has been marked by a number of banquets, meetings and entertainments held at various hotels in Wichita, and many engineers and officials of prominence have been in attendance. The exhibition of the tractors in the tents has been of as much interest as the demonstrations themselves and interest has centered about the new makes and models which are shown for the first time.

The most interesting and important tests that were carried out at the demon-



stration were private tests made by Fordson and Parrett. The Parrett tractors started harvesting, threshing and plowing a 127-acre field on June 26. The plowing has just been finished and complete records have been kept as to the exact time required for each of the various operations, the time and duration of all stops, the cause and the fuel consumption per hour and per acre. The test will furnish the tractor insedustry with official figures on these different farming operations and, to make the test official, observers from the Kansas State Agricultural College have been in constant attendance.

Complete figures on all the operations carried out during the test were published in last week's MOTOR WORLD, with the exception of the plowing and seeding records, which are printed on page 37.

The Fordson completed a somewhat similar test, covering a period of nearly a month, and the test was just finished last night. Complete records are not yet available as to all the items but full details have been kept as to fuel, time, stops, and all other details.

Attendance a Frost

The country-wide advance publicity given to the National Tractor Demonstration made every one of the exhibitors sure that the greatest crowd in history of tractor events would be brought out to view this largest and greatest of exhibitions ever held anywhere in the world. Hotels, boarding houses and private homes had been made available by the management, and it was expected that everything would be filled up, but the results were sadly disappointing.

The attendance was the great drawback to the demonstration and, while everything else might have been the best in the world, the lack of interested spectators made the whole show fall flat. There were probably almost as many employees of the companies on hand at all times as there were dealers, distributers and farmers.

A tremendous effort should have been made to get dealers and distributers from all parts of the country to come out and view the great aggregation of machines, but talks with many groups of onlookers failed to disclose any considerable number of them, and those that did come were usually from nearby points.

Few of the exhibitors reported having made satisfactory connections with dealers and distributers during the week, and while the local individual sales were gratifying the profit on these would not begin to pay the expenses the exhibitors were put to in staging the event.

In a big national event of this kind the real results should be measured partly in the satisfactory distribution channels that are opened for a steady stream of future business and no considerable amount of this sort of arrangement was effected. Dealers and distributers mean steady future business. Retail sales mean only temporary business with a chance to sell a machine or

two at one time in the distant future. On Thursday, next to the last day of the demonstration, the crowds on the headlands were in most cases employees of the different companies, so that the machines were really exhibiting for each other's benefit.

The Field Demonstrations

Over sixty tractors reported to the plowing fields each day. Each one of these was assigned to a numbered plot containing approximately one acre. The shape of the plots was changed each day and the shape of the field necessitated changing the arrangement of the plots so that the tractors had to get out pretty early to find their places. In many cases several tractors were plowing on the same piece of ground and this still further complicated the situation.

Plowing commenced each day at 1.30 p. m., and it was an impossibility for any one arriving after 1.15 to find any particular tractor that he might be interested in. The plots were so small that by the time a man walked from one end of the field to the other the machine that he was most interested in would probably be all through and on its way to headquarters where the machines were kept at all times when not demonstrating.

Where the shape of the field permitted, and the fields were approximately 60 acres, a headland was laid off down the center and tractors worked on plots on both sides of the strip, the spectators using the headland as a vantage point to watch the machines. The plots were plowed up in anywhere from 30 to 90 minutes depending upon the speed and plow capacity of the machines. There was no difference in size of plots so that the big fellows finished first and the little one-plow machines trailed along at the end.

After the plots had been completed or while they were still being plowed, other tractors with disks went over the ground and disked it in, these being in turn followed by seeding machines. After completing the fitting of the land in the plots, all the machines turned in and plowed up the headlands.

The spectacle of the great number of machines turning the huge field from a green sod to a brown, well fitted wheat field in the short space of time was entrancing when viewed from a little distance. The color just seemed to turn from green to brown as a chameleon changes its colors.

The plowing was at a uniform depth of 6 in. The soil was easy to turn, free from rocks, stumps and other obstructions, and in every detail ideal.

In the mornings a number of private plowing demonstrations were held on small fields adjacent to the headquarters field and a small attendance was secured at these, mainly because there was no public announcement made of them and it was a difficult matter to find out just where they would be held and what they expected to accomplish.

On Wednesday morning at 10.30 there was a public demonstration of cultivators in a cornfield nearby. This was witnessed by not more than two hundred people and the field was illy chosen, as the stand of corn was nearly 7 ft. high, and much of the corn was thrown down under the machines. The farmer's old saying is never to cultivate corn "higher than a horse's belly," but this was higher than a horse's back. The cultivators certainly performed their function of stirring up the dirt all right but the damage to the stand of corn left an unfortunate impression in the minds of the farmers who witnessed it, even if they were aware of the circumstances. There were only six cultivators.

Mechanical Difficulties Few

As far as mechanical difficulties were concerned, the demonstration certainly proved that tractors have arrived at a stage where the mechanical parts are dependable. There were only about three mishaps during the entire demonstration, and at least two of these were attributable to haste in getting an entirely new model to the demonstration on time so that the machines would be represented.

One tractor broke a differential shaft in the midst of the plowing on Thursday, another, on Wednesday, broke a radius rod which took away the support from the front axle and when a sharp turn was made, after the plowing was all done, the spring hangers collapsed and let the machine down. These were rather unfortunate for the individual makers, but the almost perfect performance of the balance of the machines certainly left a favorable impression in the minds of the spectators.

A heavy shower on Monday night had left the roads and fields in rather slippery condition and the failure of a number of the larger tractors, which pulled from five to eight plows to get traction. suggested that the cleats on the giant tractors were not as large or as effective as they might be.

As the demonstration was arranged so that one tractor followed another on the same plot of ground in many cases, the failure of the big machine ahead to get traction often stalled the smaller machine behind it so that the whole "fleet" on this particular plot was unduly held up through the lack of traction of the first machine.

However, the strong Kansas sun soon dried things up so that by Wednesday soil conditions were about as ideal as possible. The rain had laid the dust so that spectators could see the operations of the various machines without it being necessary to use goggles, and the top surface was dry enough to give good traction in all cases.

Taking Care of the People

On the whole, no very severe criticism can be made of the way the visitors were handled. It is true, however, that much greater crowds were expected than arrived and if a full attendance



had been secured, trouble would, no doubt, have ensued.

The town is well situated in the wheat belt, and the land within a few miles of the town is ideal for plowing. A railroad spur of the Santa Fe railroad runs right out to Tyler, which is some 8 miles out, but trains were run only every two hours, so that a considerable number who did not find the train schedules convenient used automobiles, busses and other conveyances.

The town exacted a special fee of \$40 from 'every car that carried passengers to the grounds and they were then given certain rates of fare which they were expected to adhere to, but with the high fee and the blocking of the road at times, it was necessary for the charge to be in the neighborhood of \$1 for the operator to make any money. This was a pretty stiff price and there was considerable condemnation of the whole system which caused the high prices.

The roads to the grounds were ordinary country dirt roads, and if they had been oiled or given a soaking in Tarvia, there is no doubt but that they would have stood up under the strain. However, nothing whatever was done to them except to drag them and on Monday, after a dry spell, there was so much dust that it was impossible to see, and several accidents were narrowly averted. At least a dozen cars were ditched, and one caught fire and burned up.

After Monday night's rain, conditions were exactly reversed and what was dust before became a quagmire of mud. Tractors, cars and trucks, loaded with machinery for the tents, skidded and slipped around the road and there were more cars ditched. On Tuesday morning it took an hour and a half to get to the field by road, and it was necessary to use some of the tractors to pull blockading machines out of the way to let the others go by. A fellow needed a pair of hip boots to crank a Ford.

The local stores co-operated to the fullest possible extent in advertising the demonstration, and the number of posters that were displayed was very gratifying. Drug stores featured "Fordson fizzes," "Oliver chilled sundaes," and "Lauson lemonades." Plowshares were shown in department store and other windows and fences carried the announcements of the management.

A Mile of Tents

The headquarters field near Tyler station was occupied by huge tents which housed elaborate exhibits of the different tractor and plow manufacturers.

The row of tents stretched out for nearly a mile and it was really a day's work to get to see everything in all the tents. The headquarters tent itself was also used to cover the accessory and parts exhibits and the booths of the various trade and agricultural papers. This tent was the largest that has ever been erected for any purpose outside the largest circus, and it was necessary to get the parts for it from several different cities, and if one of the sections had

not failed to show up in time, the tent would have been 50 ft. longer than it was.

The exhibits in the accessory section were well displayed on a whole and were very much on a par with similar exhibitions at the New York and Chicago automobile shows. Particular attention was paid to the special conditions that these accessories would be subjected to in tractor use. The Bosch magneto, for instance, was shown generating a spark at the plugs when the machine itself was inclosed in a glass bowl with a constant cloud of dust blown over it by a fan. Another model was working to perfection while five small jets of water played on different parts of the mechanism. Where it was impossible to reproduce working conditions with any mechanical contrivance, diagrams, charts and other means were used.

The Ericsson Mfg. Co., makers of the

ternational Harvester Co. gave out thousands of measuring sticks which could also be used as canes. The Grand DeTour Plow Co. distributed wide-brim hats, and other concerns gave out souvenirs of the occasion that were not only an advertisement but were useful to the recipients throughout the entire week.

The Tractor Tents

The tents which housed the tractors varied in size from little follows that were scarcely larger than an army tent to the largest which was over half as big as the headquarters tent. The various models made by the manufacturer were, in most cases, grouped conveniently around the available space so that the visitors could see all sides and the interior. There were several cut-away models shown, and one beautifully decorated machine was mounted on a pedestal



The old Oil Pull tractor shown above was put into operation ten years ago and is still going, with strength enough left to pull five 14-in. plows. Records kept of the tractor's work show that it has plowed 7000 acres of ground and threshed 750,000 bushels of grain

Berling magneto, had a real attention getter in the tiny "tank" EM-41, which was about 3 ft. long, powered with a single-cylindered gasoline engine and controlled by two reins which extended from the rear. This was driven through the aisles of the tent and around the grounds at frequent intervals and attracted great attention. One farmer who saw it coming at him thought he was seeing things even in a dry country, and it was with difficulty that he was restrained from climbing one of the tent poles.

Useful novelties were distributed by many of the makers of parts and accessories and their usefulness on the field insured their being kept instead of thrown out. Half the visitors to the demonstration were wearing useful farmers' straw hats with Hyatt stenciled on the crown. Large numbers of motorists and others used amber celluloid goggles given out by Splitdorf, and the Spirex radiator was well advertised over the field by the canvas water cooling bottles that were to be had from the Modine Mfg. Co.

Besides the accessory people, the In-

and revolved slowly by an electric motor so that the visitor by standing in one spot could see all sides.

In most of the tents the tractors were shown hooked up to perform various farm chores other than plowing and disking, and they were not only hooked up but were run under their own power. They cut ensilage, baled hay, loaded hay, cut wood, ran electric generators to supply electric current for the tents, and were put through various other operations.

In the Fordson tent was a cracker-jack jazz band playing the latest shimmies and jazzes. After a selection was finished the band leader would announce in a loud tone of voice that the Fordson would now be shown outside the tent pulling a binder. The drummer would give a terrific roll on his drum, the rest of the band would all yell "hurrah," and then the crowd would all push outside to see what was going on. This was a rather unusual merchandising stunt, but it pulled strong, and was kept up all day—every day with very satisfactory results.

Two tents had sections screened off

from the light so that moving pictures could be shown of the tractors doing various kinds of work in the field. Some went in for scenic effects, showing wheat fields in back of the machines, and in fact every conceivable idea was made use of to attract the attention of the visitor and hold it. Practically every maker of importance had an exhibit except the new Samson, made by the General Motors Co.

Name Changes

An interesting side light is the several changes in tractor names that have come about since the last demonstration at Salina. Here is a list:

NEW NAME
GO
Denning
La Crosse
Wheat
Cletrac

Cleveland

Two concerns have changed from a three-wheel design to four, these being the Wallis and the La Crosse.

Quite a flurry of excitement was caused in the midst of the demonstration by the announcement that three of the prominent makers had made material reductions in their prices and that it was expected that most all of the companies would make similar announcements during the course of the week. The report was false and when the facts were run down, the reductions were pinned down to two companies who had reduced only on certain models. The increasing cost of labor and the very slight decline in materials prices make a sweeping reduction in tractor prices impossible.

The Avery reduced prices on the 12-35 model from \$1,275 to \$1,000 and on the 8-16 from \$925 to \$700.

The Waterloo Boy, made by Deere & Co., has been reduced \$100.

Aside from these changes, no other prices have been reduced recently, and many maunfacturers are seriously considering raising prices in the near future.

Tractor attachments for turning automobiles into farm tractors were conspicuous by their absence. This is the first big demonstration since attachments have come into being that they have not been shown and demonstrated. Much comment was made on the fact that none was represented, and the prediction was made that they would not again be seen at a national demonstration, as their field is strictly limited to smaller farms.

Airplanes Cause a Diversion

During each day that the demonstrations were on, airplanes circled overhead dropping advertising matter of different kinds, all of which attracted considerable attention. C. F. Kettering, president of the Domestic Engineering Co., Dayton, Ohio, incidentally performed a feat in eating his breakfast in Dayton, beating an express train to St. Louis by several hours and landing in a field close to Wichita at 2 p. m. in time for lunch. This was on Thursday, and in the eve-

ning Kettering addressed the S. A. E. banquet which was held at the Hotel Lassen. He said that the airplane had already taken its place as a means of rapid transportation for busy men and he looked upon his performance not as a stunt, but as a necessary means of travel which had saved him nearly a day which he would have had to spend on the train. On Friday morning he left for the East in his airplane, which he has been using for business trips in the Middle West for more than a year.

The New Tractors and Improved Old Ones

The new ones at the demonstration are the Bean Track Pull, Best, Mid-West, Nelson, Wolverine, Townsend, Utilitor, Wetmore, Whitney and Pan. Some of these are not absolutely new but are being shown here for the first time. The new La Crosse one-plow model is also new and is being shown in addition to the older model.

The Nelson four-wheel drive is made by the Nelson Corp., Chicago, and has a four-wheel drive operated by enclosed chains. The rim of the wheel instead of being solid, as is usual in tractor design, has an open face on the rim, the design being effected by slats. The idea is to prevent soil packing and to give traction. It is made in three sizes, 15-24, 20-28 and 35-50, pulling 3, 4 and 8 plows respectively.

The Uncle Sam, made by the U. S. Tractor & Machinery Co., Menasha, Wis., is not exacly new, but is shown at the demonstration for the first time. The machine was brought out last year, but production was stopped by war conditions, and it is only recently that new buildings have been completed and work started.

A baby model has been added by the La Crosse Tractor Co., La Crosse, Wis., known as the Model M, 6-13. It burns kerosene, is an all-purpose machine and pulls one plow. The other La Crosse model has been continued and was shown and demonstrated also.

The Wheat tractor, made by the Hession Tiller & Tractor Corp., Buffalo, is made in two models, but only one of these was at the demonstration, this being the 14-26 which is en route from the Atlantic Coast to the Pacific. It started from New York shortly before Memorial Day and after the end of this week will continue on its tour to California. On road work, a special set of rubber tired wheels is used and a larger gear ratio is used to give speeds up to 18 m.p.h.

Gears Are Enclosed Now

The Wisconsin Farm Tractor Co., Sauk City, Wis., while not having made such fundamental changes in design as to produce a distinctively new model, has enclosed the gears on the Wisconsin tractor and made such other changes as to entitle it to be "new." The machine which was shown incorporated all the changes which have been made.

One new model, a light-weight, small

tractor of 12-20 capacity, was included in the exhibit of the Advance-Rumely Thresher Co., La Porte, Ind. Except for a reduction in weight and a refinement in design the new model does not depart far from the standard construction of the Oil Pull line.

The "G-O" tractor, demonstrated by the General Ordnance Co., Cedar Rapids, Ia., and Derby, Conn., may be regarded as new. The "G-O" is a development of the machine formerly known as the "National," but many important changes in design have been made.

For Small Farmers

The Dart Truck & Tractor Corp., Waterloo, Iowa, will make its first appearance at a national demonstration with the Dart "Blue J." This machine was exhibited at the Kansas City tractor show last winter and no important changes in design have been made since that time.

The Frick Co., Waynesboro, Pa., has one new model of 15-20 rating. The design of the new model follows closely that of the 12-25, already introduced to the trade and shown at previous demonstrations.

While of the same general design as other models of the same make the 12-7 Monarch, manufactured by the Monarch Tractor Co., Watertown, Wis., is new. The new machine is built lower than were previous models and has been designed especially for the small farmer.

The Pioneer Tractor Mfg. Co., Winona, Minn., has a new 18-36 model. The distinctive feature of this machine is its large wheel area.

The Royer Tractor Co., Wichita, Kan., has introduced its new model D 1919. The company expects to concentrate future production on the new machine and it will have added interest for this reason.

Another new tractor is the Wolverine, a Saginaw, Mich., product, which is a combination wheel and creeper type. In front are two steering wheels, and at the rear in the center is the creeper with a balancing wheel at each side of it. Normally these balancing wheels do not rest on the ground but do so when the creeper sinks into the earth. These wheels are of small diameter and have wide tires. They are keyed to the shaft that drives the creeper and so rotate at approximately the same speed as the creeper travels at. It has a capacity for four plows and lists at \$3,200.

Atlas V-Type Engine

The Best, one of the pioneer creepers, is here as is the Bean Spray, which is a creeper type with a single creeper in front and provision for attaching the implement that the tractor hauls directly to it so that the operator sits on the implement and controls the tractor through extension controls.

The Bean Spray is a very unusual design and is shown in two models. The smaller model uses a V-type, two-cylinder engine which is mounted at one side of the creeper and has the radiator at the opposite side. It is an



exceedingly compact job and is intended for orchard work, being very low and narrow. It can be used with cultivator attachments.

Some improvements are noted on existing types that have been on the market for several years. The Wallis Colb Jr., which has always been a three-wheel job, is shown also as a four-wheel design. The three-wheel job has scarcely been altered in attaching a front axle, which is supported by a plate attached to the frent end of the trough-line crank-case which has been a feature of the Wallis. The front wheels are of small diameter and have very wide rims.

The Cletrac, which used to be the Cleveland, is shown with the new creeper tread that has been in production for a month. It is lighter than former

treads and has self-cleaning features. The Cletrac is also fitted with a new combination water and contrifugal air washer, which is a compact box-like design placed outside of the hood.

The J. I. Case Plow Works has a tworow type of conventional design, using
a four-cylinder Wisconsin engine which
drives through a gearset to a jackshaft
and thence by exposed pinion and gear
onto the rear wheels. It is a triangular design with a single wheel in front.
The Wilson is a recent development of
the Wilson Tractor Co., Peoria. It is a
clear-vision type in that the four-cylinder
Le Roi engine is mounted transversely
at the right of the center line, so that
the operator has a clear view ahead of
him.

One of the latest examples is that of

the International Harvester Co., which has a tractor binder in which the machinery of the binder is driven from the tractor instead of being driven from the bull wheel of the binder. The binder cannot be used unless fitted to the small I. H. C. 8-16 tractor. There has been added to the tractor the necessary gearing and control levers to take the power off for driving the binder. Good reports are coming in from the job.

A new convert has been added to the garden tractor field. To the Beeman, the pioneer of this class, has been added the Utilitor, of the Mid-West Engine Co., Indianapolis. It is a type similar to the Beeman, and while not in production yet, has its factory tooled up and will soon be producing in quantities sufficient to meet demands.

Parrett Test Gives Real Results

WICHITA, KAN, July 19—The 127-hour official test of the Parrett tractor by the professors and students of the Kansas State Agricultural College was completed yesterday when the tractor completed the plowing of the 127-acre field of wheat stubble which had been previously harvested and threshed as a part of the test. The plowing with the three-plow equipment required 127 hours and 9 minutes, so approximately one acre per hour was plowed from start to finish. The plowing was continued night and day, three shifts of workers being employed.

The total elapsed time for plowing was 151 hr., 2 min. In all 23 hr. 53 min. were lost due to stops and delays. A good portion of this was caused by a heavy rain one evening. Some of the stops were caused by troubles of the plows and others by troubles of the tractor. There were other stops for taking on gasoline, water, oil and changing plow parts. The following is a classification of the stop-losses:

Tractor time loss, 8 hr. 6½ min.; plow time loss, 2 hr. 34½ min.; weather loss, etc., 13 hr. 12 min.; total, 23 hr. 53 min.

The tractor losses were largely made up of repairing the fan belt which developed trouble with the lacing on three or four occasions. Generally three to five minutes were needed for each repair. The sediment cup in the fuel line had to be cleaned several times with a loss of approximately five minutes each time. There was one case of a valve sticking which caused a delay of nearly one hour. One evening the lubricant in the gearbox ran too low and the gearshifter fork stuck and had to be changed. Other tractor delays included several adjustments of the carbureter, cleaning the air washer, cleaning contact points in the magneto, adjusting the magneto and changing one or two spark plugs. The majority of the troubles occurred at night when there was not sufficient light properly to watch the operation of the tractor.

The official report, covering the harvesting of the crop, threshing the grain and plowing, contains figures on oil consumption by the tractor which can be taken as representative of what a tractor requires. During the test the oil was drained from the crankcase approximately every 30 hours, the drainings being thrown away and fresh oil filled. The capacity of the engine was slightly over two gallons. No analysis to date has been made of the lubricant taken from the crankcase but distillation tests are to be made. At no period was the amount of oil drained from the crankcase nearly so great as the quantity put in, indicating that there was not a heavy leakage of fuel from the combustion chamber.

In the 127 hours of plowing 10.9 gal.

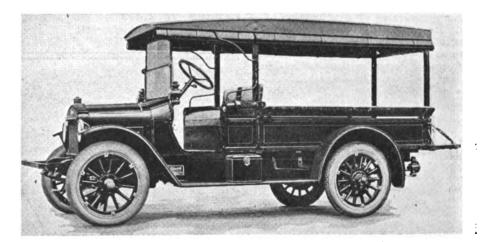
of lubricant were added to the crankcase, this including 2 gal. of fresh oil put in at the start of the plowing.

Lubricant was added seven times after the start of the plowing.

In threshing the wheat grown on the 127 acres, 29 lb. and 10 oz. of oil were needed, Allowing 7 lb. to the gallon, this gives 4.23 gal. put in the crankcase, which included filling it at the start.

The figures show that while 29 lb. 10 oz. of oil were put in the crankcase for the harvesting operations, 21 lb. 11 oz. were drained out.

While threshing the grain, which covered a total time of 71 hr. and 57 min., 7.68 gal. of oil were required. Here again oil was added at four periods after the start and during the threshing test the oil was drained out three times.



Heavier and larger, with slightly increased length and greater speed, the new Stewart model No. 11 truck of 4-ton capacity has just reached the market to take the place of the former model No. 6. Several changes have been made in specifications, giving the new truck heavier front and rear axles. It carries a 4-cylinder engine, with dimensions of 3½ x 4½, with combination forced and splash oiling system. The No. 11 is equipped with electric lighting and starting system, part of the equipment being a Dyneto starter with Eisemann generator and Willard storage battery. The list on the new model is \$1,195, an increase from \$1,050. The picture shown above is the chassis equipped with the covered express body

1920 REO One Model Only

Six Cylinder Machine Has **Entirely New Engine**

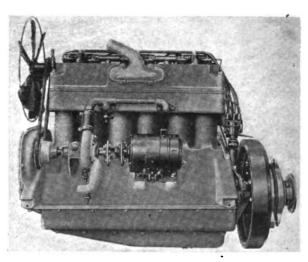
URING the coming year, Reo cars will be made in one chassis model only, and that a 6-cylinder model. The engine is of entirely new design, while the chassis is an adaptation of the 4-cylinder chassis of former years. The engine is of the type having the inlet valve in the head and the exhaust valve in a side pocket; it has 3 3/16 x 5 in. cylinders, and is rated at 50 hp. at 2000 r.p.m. The cylinders form a block casting with a detachable head, and the overhead intake valves are completely enclosed, which gives the engine a much cleaner appearance than its predecessors.

A 5-passenger body will be started in production at once, and later, additional bodies will be announced.

Cylinders and the upper half of the crankcase are cast together, and the lower half of the case, which is an aluminum casting, is bolted to this block. Lynite pistons, which have been used on Reo cars for three years, are continued. Each piston weighs 15 ounces and is 4 in. long. A compression pressure of 56 lb. per sq. in. is carried. A special type of double eccentric piston ring is used, each ring consisting of two eccentric rings so pinned together as to form one concentric ring.

On previous Reo models the piston pin was fitted into the top end of the connecting rod and had a bearing in the piston bosses, but on the new model the reverse arrangement is used. The connecting rod is of I section, machined all over, and measures 101/2 in. between centers. Its cap is held on by 2 studs of electric furnace alloy steel, which also serve as dowels. These light connecting rods, together with the aluminum pistons, admit of the high speed of which this engine is capable. The speed of maximum horse-power is 2750 r.p.m., as compared with 1800-2000 r.p.m. for previous Reo models.

A very substantial crankshaft is used, 24 in. in diameter, with four main bearings. While the main inserted bearings have bushings of the bronze-back type, the crankpin bearings are die cast directly into the end of the connecting rod. In justification of this construction it is claimed that it is an easy matter to take the rod out and re-babbitt it, or to slip in a new rod and return the old one to the factory. The crankshaft is drilled out to reduce its weight, and



1-New six-cylinder Reo engine which will be used in all chassis for 1920

is mounted centrally with respect to the cylinders, instead of being offset.

Fabric gears with helically cut teeth are used for the camshaft and auxiliary drives. The camshaft, with its integral cams, is supported in four bearings. It is 11/2 in. in diameter, which is unusually large for a shaft so well supported. Roller cam followers are used.

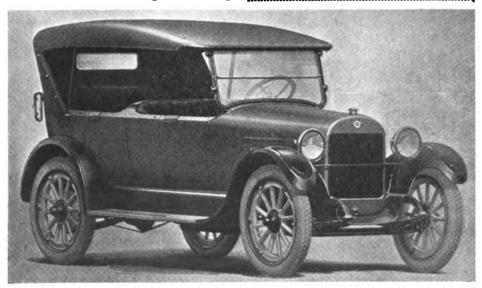
Only the inlet valves being located in the head, it has been possible to make the clear diameter as large as 21/4 in. The lift is 9/32 in., and the stem moves in graphite bronze bushings. The exhaust valve has a clear diameter of 1% in., and a lift of % in. It is provided with a cast iron bushing.

Special attention has been paid to the problem of effective cooling. The spark plugs are located in recesses where they will be protected from fouling due to oil pumping.

A portion of the intake header is cast integral with the exhaust, thus insuring the heating of the mixture before it enters the manifold, which is contained in the cylinder head. Provision is also

REO SIX SPECIFICATIO Body types Touring, roadster

Price\$1,650
Wheelbase120 in.
No. of cylinders6
Bore and stroke 3 3/16 x 5 in.
Cyl. shapeL
Camshaft drive
Water circulationPump
LubricationSplash-pressure
Oil pumpPlunger
Carbureter Rayfield
Fuel feedStewart Vacuum
Ignition Northeast
Starter Northeast
Lighting Northeast
Voltage6
WiringGround return
Clutch Dry disk
GearsetAmidship
Speeds
Final driveHotchkiss
Rear axleSemi-floating
Final reduction4.6 to 1
Tires
Wheels
SpringsSemi-elliptic
Steering gear Reversible



2-Many changes are noticeable in the new Reo body. Note abandonment of peaked radiator



3—The rear tire carrier is a structural part of the frame. Grease cups on shackles are replaced by attachment for grease gun



made for pre-heating the air in cold weather. The lubricating system is a combination of pressure feed and splash. A single plunger pump is used, which feeds oil to all the main bearings and to the overhead rocker shaft bearings. Seamless steel tubing is used for the rocker shaft, and into this oil is fed from the plunger pump in the crankcase. In operation, the oil pressure varies between 4 and 15 lb.

Northeast electric equipment is employed, the ignition unit being at the rear end, driven off the camshaft. The starting motor is mounted over the front end of the transmission gear, which is clocated amidships, and drives through a chain and an automatic overrunning clutch.

No change has been made in the dry disc type of clutch. Owing to the separate mounting of the transmission gear a flexible disc type universal is inserted between it and the clutch. The threespeed gear sets also remains the same. It is supported on a sub-frame and its shafts are mounted on Hyatt roller bearings.

The rear axle is semi-floating, with a cast steel differential housing, and drawn steel tubing for the axle housing. Axle shafts are of nickel steel, 1% in. in diameter at the wheel bearing and tapering toward the center. Final drive is by spiral bevel gears of 5 pitch. Timken bearings are used on the I section front axle.

Body Equipment Complete

Upholstering is in hand-buffed leather over Marshall cushion springs. The side curtains fold into a bag provided and go under the front seat. Detachable curtain supports are provided for both right doors. The equipment of both body and chassis is complete. A new feature is the use of force-gun grease lubrication in place of all grease cups. The flexible tube from the gun is connected to the lubricated point and a turn of the handle applies a pressure of 500 lb. Another point in shackle improvement is the arrangement of an easy adjustment feature so that the owner can readily take up the wear at these points. The standard color is blue with white wheels.

Westinghouse Circular on Electric Arc Welding

THE Westinghouse Company, East Pittsburgh, Pa., has issued quite a publication covering the process of electric arc welding and the necessary apparatus required for this process. This publication compares the different processes of welding, such as autogenous welding, forge welding, oxy-acetylene welding, thermit welding, and shows the advantages of electric arc welding. Electric arc welding is used in those branches of the metal industry in which work is done on iron or steel in rolled, cast or fabricated forms. New fields for its successful application are being discovered every day. The booklet is educational and may be had on application.

STRIKES RETARDING MIDDLE-WEST OUTPUT

Raw Materials Plenty at Detroit and Toledo, but Workers Are Irregular

DETROIT, July 18—The labor situation is entirely responsible for the present shortage of automobile, truck and tractor parts with the resulting curtailment of production in a large number of automotive plants in the Detroit districts. Parts makers say there is plenty of raw material but they cannot get the labor to work it up. Strikes have occurred with regularity in their factories, making it impossible for them to keep up with the increasing demands of the car and truck manufacturers.

The last week saw considerable improvement in the labor situation. If this continues, the situation will gradually right itself. Automotive companies are having less difficulty in getting a steady flow of parts, and production in most of the big plants is picking up rapidly. Strikes at the Wadsworth, L. A. Young Industries and Timken-Detroit axle plants are practically over as far as the companies are concerned. All have nearly their full quota of workers back on the job. At the Wadsworth and Young companies production is almost normal, while Timken is running approximately 70 per cent production. Companies depending on these concerns for parts are now receiving a fair sup-

Other parts makers have had strikes which lasted from 2 to 10 days. Trouble in most of these cases was speedily adjusted but nevertheless production suffered and it is these minor disturbances that are cutting production heaviest at present.

The general strike in the Detroit foundries continues but it dwindling down in practically every instance. Production of castings is still sub-normal, however, due to the hot weather now more than anything else. The continued hot spell has been exceedingly hard on the molders. In some of the shops, it has made it almost impossible for the men to continue their work. Others will not work during the warm days. This condition, coupled with the strikes, has made all of the Detroit foundries short of men. Until cooler days come, the situation will not improve much.

Purchasing agents are now convinced that the price of steel is about stationary and all of the companies are placing large orders. Many are contracting for their 1920 production. The smaller steel consumers are now in the market and are abandoning their "hand-to-mouth" buying policy.

Parts production will show marked increase from now on. The manufacturers were not so quick to recover from the cancellation of war contracts, inasmuch as they did not have the working capital behind them to tide them over until the Government could make adjustments and release the money they had tied up in

war material and equipment. Now, however, the Government has completed settlement in practically all cases and the majority of the companies have finished their reorganization work. Production is now running up rapidly and the next few weeks will see it reach a volume business basis again.

TOLEDO, July 14—Production at the Willys-Overland plant is now averaging two hundred and fifty completed machines a day. During the week just ending, 1200 additional men returned to work, bringing the total number of men now employed there up to 8500. Thir teen thousand five hundred men were on the payroll the day the strike was called nearly three months ago.

During the four weeks that the company has been running under the jurisdiction of the United States court there have been no cases of violent notoriety. The situation, from a standpoint of employees, the company and the court is very satisfactory.

Included among the employees who have returned are many forge men, die makers and machinists. There are no imported strikebreakers working in the plant. Most of the workers are old employees, although new men are being engaged daily.

From the union headquarters comes the word that the strikers are holding firm. All of the resources of the American Federation of Labor will be put behind the idle workers, union officials declare. This was assured by E. C. Clark, special representative and organizer of the American Federation of Labor, who spoke to 6000 striking workers at a mass meeting last week. Clark declared the Toledo situation "unheard of". He said it is the first instance he knew wherein a court injunction has been issued to compel a company to manufacture an output.

RAILROAD GIVES WAY TO TRUCK EXPRESS

LUDINGTON, MICH., July 14—Motor truck transportation has put the passenger division of the Ludington & Northern Railroad out of business. J. S. Stearns, principal owner, has contracted with Epworth & Hanlin to furnish automobile transportation from trains and boats to the resorts for the next two years, in return for co-operation of these committees in asking the Michigan Public Utilities Commission to enter an order permitting tearing up of the rails.

Ford Managers in Session

DETROIT, July 22—Branch managers of the Ford Motor Co. are in conference here to-day in a session which, because of the recent acquisition of most of the minority stock by Henry Ford and his son, Edsel, is expected to result in important developments.

Milburn Adds Space

TOLEDO, July 18—The Milburn Wagon Co. has added 40,000 sq. ft. of floor space to its present factories.



News Letters From Trade Centers

LOS ANGELES

Has New Race Project

LOS ANGELES, July 21—R. C. Durant, racing driver and Pacific Coast representative for some of the General Motors Company's products, is named as sponsor for a new project to build motor speedways at Los Angeles and San Francisco. The California Speedways Association will be organized and incorporated for \$250,000, Durant announced. Associated with Durant in financing the proposition are said to be two other men prominently identified with the automotive industry in California.

The speedways in California are to be operated in conjunction with the one at Tacoma, Wash. According to Durant's announcement, none but the best drivers will be permitted to race in the open events. No purses of less than \$15,000 will be offered. Two big meets are to be held at each track during the year.

It would look from this announcement that there may be competition on the speedway prospect in Los Angeles. The mile track at Ascot Park, Los Angeles, has been operating very successfully under the direction of George R. Bentel. Recently the Goodyear Tire & Rubber Co. acquired control of Ascot Park and the speedway will have to go. Bentel and his associates have been looking for another site and are said to have obtained one. It is not considered probable that two speedways would prove paying investments, but one would be a big revenue producer.

Don Lee has purchased the Earl Auto Works in this city and a similar enterprise in San Francisco. Lee is California distributer for Cadillac cars and one of the largest automotive dealers in the state. The consideration for the two plants has not been divulged at this time. Lee will retain the services of the Earls during the first year at least.

The Earl Auto Works is the largest automobile top and body building concern on the Pacific Coast. It occupies a building of four stories and, it is reported, Lee will add another four stories.

W. B. Herbert has been appointed Southern California distributer for the Cleveland car. Don P. Smith, vice-president and general manager for Earl V. Armstrong, Inc., the Chandler distributer, will be associated with Mr. Herbert.

The Howard Auto Co., Buick distributer, has opened a branch at Hollywood under the management of W. B. Dixon.

The Davidson-House-Meyer Co. has

been organized and will represent the Cele in Southern California. A new building is in process of construction.

The Bissel Motor Truck Co., 1220 South Grand Avenue, has added the Diamond T truck to its line.

The Motor Car Dealers' Association has voted in favor of Saturday afternoon closing during the months of July and August.

The B. & B. Tire Co. has been appointed Los Angeles representative for Stroghold tires.

For the second time the city council has under consideration an ordinance that would prohibit the standing of used cars on the streets for sale purposes. The issue is one that has both supporters and opponents among the car dealers.

The William R. Hughson Branch here has become strictly an automotive concern. A few years ago nothing but passenger cars were handled by this company. Later trucks were taken on, then followed the Fordson and now the Lee line of trailers.

There has been no letup to the car shortage and apparently no relief can be expected until late in the fall. Dealers here believe that when the demand slacks off in the East and manufacturing conditions are improved more cars will be available. Holding deposits on cars subject to 90 days delivery is one of the hardest things a dealer is up against. Higher prices and threats of higher prices do not seem to be affecting the demand.

Harris M. Hanshue, manager of the Apperson branch, has returned after a six weeks' visit to the factory.

Consulates for Nicaragua and Colombia have been established here and both representatives have taken keen interest in motor trucks. There is a strong movement here to create business in Latin America that can be reached from this port.

De Mille field has been selected as aviation headquarters and officially designated as such by the City of Los Angeles. Visiting aircraft operators are directed to land at this field, where hangars, a shop and experienced mechanics are available.

The largest fleet of taxicabs in the city has been installed by the Los Angeles Transfer Co. Dodge cars were selected for this work.

The Automobile Club of Southern California has occupied the new addition to its building. This club claims to have the largest and finest head-quarters in the country that are devoted exclusively to the business affairs of the organization.

MINNEAPOLIS

Has New Agencies

MINNEAPOLIS, July 21—Minnesota is now operating under a new law requiring registration of ownership of an automobile before license can be obtained from the Secretary of State or a valid sale of car can be made by the owner.

Although there is complaint of shortage of automobiles for delivery and that the tractor business seems to have slumped off, developments in the way of expansions and new distributing and sales agencies are numerous.

The Pence Automobile Co. on July 13 opened a branch in St. Paul. Temporarily quarters are at Eighth and Cedar streets. Later a building will be erected. William Barnaby is manager. The Buick and G. M. C. trucks are carried. The Roller Motor Co., 219 West Sixth Street, which sold the Buick agency, has substituted the Nash car. The Pence property is 175 x 200. The company has branches also at Fargo and Minot, N. D., and Billings, Mont.

The Northwestern Oldsmobile Co., Minneapolis, has been organized to distribute the Oldsmobile in Minnesota, North Dakota, parts of South Dakota and Montana and western Wisconsin. Bohn Fawkes, former distributer, will devote his time to the Stutz. K. T. Wiedemann, St. Paul agent, will take over the Minneapolis agency, at 1630 Hennepin Avenue. Officers of the new company are: General Manager, A. L. A. Spetler, former division salesmanager at the factory; Salesmanager, G. H. Evans, formerly salesmanager for John Deere Plow Co. at Kansas City; Assistant Manager, W. P. Winders, formerly manager Ford branch at Fargo, N. D.; Director, B. A. Lofgre, banker at Ada, Minn.

Other new agencies and distributers are: Coon-Jones Sales Agency, 1517 Hennepin Avenue, Highway Trailer, Minnesota territory; B. J. Eckes Co., Inc., 215 Fourth Street N.; Konkel Motor Co., 1225 Hennepin Avenue, Nelson car. Northwest territory; Tower Motor Truck Co., 25 Seventh Street N., Tower truck, Twin Cities; Northwestern Automobile Co., 1500 Harmon Place, Columbia, N. W. territory, branch at 63 Fifth Street N., Fargo, N. D., and Watertown, S. D.; Farm Motor Co., incorporated at \$2,500,-000; Carl M. Sholin, Milaca, Minn., president; C. A. Dammerall, Chicago, secretary-treasurer; other incorporators, W. R. Donalson and L. D. Sheely, Chicago, and N. P. Carleton, Minneapolis.



NEW ORLEANSHas Trade Changes

NEW ORLEANS, July 19-The Oldsmobile has entered the retail field through the Gulf Oldsmobile Co., which opened its new retail salesroom and service station in the heart of "gas row," 750 St. Charles Street, July 15. The location selected is the building recently vacated by the Greenlaw Truck & Tractor Co., which moved into its new quarters a short time ago. A day or two before the official opening the Gulf company held a banquet at which its representatives in Shreveport, Lake Charles, Monroe, Baton Rouge, Alexandria, Lafayette, Bouie, Thibodaux, Hammond, Opelousas, Parkdale and Franklin were guests of the New Orleans live wires.

For the past eighteen months the retail agency for the O'dsmobile has been in the hands of H. A. Testard, who relinguished it to devote all his time to the Hudson and Essex. The new company will handle a complete line of Olds, consisting of 6 and 8-cylinder passenger cars, 5 and 7-passenger touring and roadster types, and the Oldsmobile Economy truck. Principals in the Gulf Oldsmobile Co.'s organization are C. L. Briggs, Lake Charles, president; C. R. Loree, secretary-treasurer, in charge of retail sales and service; George L. East, vice-president, formerly assistant sales manager for the Olds Motor Works, who will handle the wholesale department.

Housed behind plate-glass windows extending entirely across its sixty feet of frontage, and resplendent in a color scheme of blue and white enamel, the Automotive Sales Co. is happy in its new Carondelet Street home for Maxwell and Chalmers sales. This company was formed by some of the leading business men of Louisiana, among them Summa Caldwell, and his brother, State

Senator V. L. Caldwell, sugar planters, bankers and shipbuilders of Vermilion Parish; Captain E. P. Maresi, capitalist and planter, also of Vermilion, and Robert J. Boudreau, member of the state assembly.

James D. Cathey, distributer of Chevrolet and Nash cars and Federal trucks, left New Orleans July 12 for an extended trip to the factories at St. Louis and Kenosha, in an effort to obtain more cars.

J. K. Dunn, who sells the Chevrolet auto and the Republic truck, and is preparing to take on the Allen, at his showrooms, garage and repair plant at McComb, Miss., took time out as a leading auto dealer of the Magnolia State and came down to New Orleans to tell the Louisiana-Mississippi Automotive Trades Association just what Mississippi needs to develop the automobile sales husiness there.

"Mississippians are buying more automobiles than they ever did before," said Mr. Dunn to the correspondent of Motor World. "The crops have been good and everybody is buying a car, for business, if not for pleasure, for they have found that the automobile on the road and the truck for hauling is faster and cheaper than the team in the long run. I operate a wholesale grocery in addition to my automobile business, and I find that I can operate a Republic truck for a year, and then give it away at a profit. I was the first man in the South to use auto trucks and one of the first wholesale grocers in the whole country to use them. I use the 1-ton Republic and have found it cheaper, faster and infinitely more reliable in making deliveries than the teams I used for years and which some of my competitors are still using.

"The use of tractors has not advanced in Mississippi as it should have done, owing to the failure of the manufacturers and the dealers to give demonstrations on the farms throughout the state and thus to educate the people of the farming sections to the value of the tractors. There is one firm in McComb, my home city, which has been agent for a tractor for several years, yet neither this firm nor the maker of the tractor it sells has ever given a demonstration of the work and capabilities of the machine.

"We are looking to the development of good roads as a tremendous factor in increased business in autos. Pike county, in which McComb is situated, has just voted \$300,000 bonds for road improvements, the highways to be constructed of vitrified brick, which has a life of about thirty years, and maintained in good condition after they are constructed. The road improvement idea is gaining ground all over Mississippi, and if we can get good demonstrations under competent demonstrators, to educate the people in the use of tractors we shall soon be doing 100 per cent more business than the excellent standard we are now maintaining."

HARTFORD

Dealers Take Trip

HARTFORD, CONN., July 19 -Twenty-three dealers, members of the Hartford Automobile Dealers' Association, Inc., passed up business this week for an outing down the Connecticut River and along Long Island Sound. S. A. Miner, Pierce-Arrow distributer, was commodore. The dealers cruised down the river in motor boats, stopping for refreshments at Essex. The run was later resumed and continued across Long Island Sound to New London, where stop was made for the night. The next day the dealers cruised over to Niantic Bay. The next day the party started for home. David B. Roberts, Buick distributer, entertained the dealers at his farm. Russell P. Taber, Reo, Republic and Peerless distributer, won general approval by reason of his ability to cook. L. H. Elmer was the only member to get seasick, although he showed marked ability and speed as a swimmer. Charles O. Britton, president of the association, presided over the gathering. He was assisted by Ben F. Smith, show manager.

H. M. Hartwell & Son of Springfield, Mass., have opened a branch and service station for the Gates Half Sole Tire at 183 Allyn Street, Hartford, Conn.

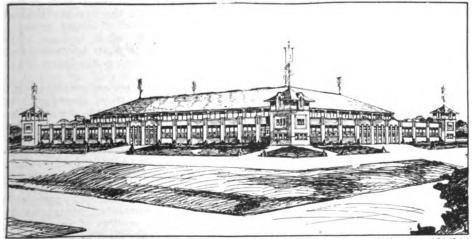
The Cohen Motor Co. has been appointed Cornecticut distributer for the Halladay Six and has opened stores at 86 Arch Street, New Britain, and Wells and Hudson Streets, Hartford, Conn.

Metcalfe & Berry, Hartford, have closed the Hartford store at 134 Church Street and removed the stock to the New York headquarters.

All gasoline pumps in Connecticut, according to the new state law, must be registered. A small license plate similar to that used on cars is issued by the Commissioner of Motor Vehicles at a cost of \$2. The plate bears the license number and the year.

The Hartford Hupmobile Co. is making extensive alterations in the property at 98 High Street.

Indiana Automobile Show Building



The Indianapolis Automobile Trade Association will exhibit Sept. 1-6 in one of the handsomest automobile show buildings in the country, erected for the association by the Indiana State Board of Agriculture at the state fair ground. Occupying 232 by 372 ft. of ground and costing \$120,000, the building has a sunken exposition space 100 by 220 ft., encircled by a promenade 60 ft. wide. The show will be the nineteenth in the Indiana metropolis

NEW YORK

Dealers "Jes' Hopin'"

NEW YORK, July 23-"When are you going to get some cars?"

The salutation is about as common on "the row" as the army's "Where do we go from here?"

And the reply, which provokes a grin, or a shrug of the questioner's shoulders, according to his temperament, runs about like this:

"I hear they're starting a big shipment from the factory this week."

Whereupon the prospect jumps a handy street car—bemoaning the fate that balks his ambition to travel de luxe-and the dealer, staring moodily across the empty showroom, observes:

"What's the use?"

But New York distributers and dealers are not spending much time, at that, what's-the-using. They are selling cars -thousands of them-but the figure is a pigmy compared with the business they could do if they could get the machines.

While "cussing" the factories is quite a favorite indoor and outdoor sport along Broadway, some of the dealers are willing to admit that conditions are improving. Shipments are coming in larger lots and more regularly than a month ago and chances of getting somewhere near even with orders are brighter. But you can't find a manager or salesman who expects the demand and supply column to balance, even by January 1.

As an instance, it was stated at the Ford agency, distributer for eastern New York state, northern New Jersey and Connecticut, that deliveries were 4200 behind officially listed orders.

Nor has the advance in prices, already effective on some makes, and ordered for Aug 1 on others, had any apparent effect on the demand. A number of dealers report being lectured by indignant persons who had made inquiries about cars, but who had not been listed as prospects, and who felt they should have been notified, perhaps by a dozen showrooms they had shopped around in, of the impending increases. The retailers generally warned real prospects.

At the New York Automobile Dealers' Association clubhouse one hears considerable dissatisfied talk over the approaching show. The dealers conducted it last year, made a decided success of it. and harvested a neat profit. This year, the National Automobile Chamber of Commerce has stepped in, deciding to conduct New York and Chicago shows as in previous years. Under the circumstances a dealers' exposition is out of the question, but there have been suggestions that a special show be held under local auspices, exhibiting, possibly, closed body models. But officials of the dealers' organization predict that this and all other proposals will fall through, and they expect practically unanimous registration of the retailers, as well as the factory branches, for show space. The local men dislike particularly the N. A. C. C. show dates, Jan. 3-10, preferring a week in late February or March, which places the show close to the start of the spring season, but the original schedule will be followed, the Grand Central Palace having been re-

The Dort Motor Car Co. has leased a building at West Fifty-fourth Street and Eleventh Avenue as a distributing center, of which F. L. Sanford will be in charge. The new enterprise will not interfere with operation by the F. W. Wright Co., West Fifty-seventh Street, of the Dort retail agency.

The Bessemer Motor Truck Co. has been formed by J. M. Pendleton to handle Bessemer trucks as distributer in New York City and New York State as far north as Schenectady, in New Jersey north of Trenton, on Long Island and in the entire state of Rhode Island. Mr. Pendleton was formerly connected with the New York branch of the Sterling Motor Truck Co., Milwaukee, Wis., where he served as sales manager for four and one-half years. He has opened his service station, showroom anl office in a new building at 505 West 55th Street.

Robert Marcus, formerly with the American Bureau of Engineering, has been given charge of the battery service station equipment department of the H. B. Shontz Co., metropolitan distributer of Ambu products.

The Wagner Specialty Co., Broadway and Sixty-third Street, has placed on the local market the F. O. B. combination automobile lock, which has been sold in the Philadelphia district for several months.

Fuller & Sons Mfg. Co., Kalamazoo, Mich., builder of motor car, truck and tractor transmissions, has opened an office at 1834 Broadway to take care of its Eastern business. F. George Walker is in charge.

INDIANAPOLIS

Buying Used Cars

INDIANAPOLIS, July 19-Indianapolis dealers continue to get plenty of business, but very few cars. The used car dealers, of which there are twentyfive or thirty, are reaping a harvest since they are able to sell anything on four wheels. People are very anxious to buy, and these dealers apparently are able to carry a good stock at all times. It is difficult to tell where these used cars come from, but they are here in plenty, in spite of the big and continued demand.

The Welbon Automotive Co. was incorporated here this week by William G. Welbon, William J. Welbon and William N. Woodruff, with a capital of \$50,000. The company will have the state distribution of the Chandler and Cleveland, under the active management of Mr. Woodruff.

KANSAS CITY Car Sales Heavy

KANSAS CITY, MO., July 19-Passenger car dealers in Kansas City have been behind in deliveries for several weeks, and now some of the truck dealers are having to watch vacant space on their sales floors. The way cars have sold this summer has been a surprise even to the most optimistic. It is said that an increase of 12 per cent has come about in passenger cars in use in Kansas

City during the past 60 days.

Both cars and trucks have increased in the territory about the same proportion, one of the immediate effects having been a sharp stimulation in the business of small-town dealers who handle accessories. The Automotive Supply Co. has added two salesmen in the past month, traveling Kansas and Missouri, and the entire force is paying greater attention to small-town dealers. These dealers are going after the trade of the car owners of their localities that formerly went to the big city dealers and elsewhere.

The Auto Wrecking Co., whose slogan is "We tear 'em up and sell the pieces," has extended that slogan to the airplane. Intended at first as an advertising stunt. the purchase of a wrecked plane has proved good business for this firm. Many applications have come in for parts. That an opportunity exists for a salvage business in planes is shown by the many calls for automobile engines for use in homemade planes in this territory.

Dealers and garagemen are much disturbed over the campaign to require reports on all cars that come into or go out of their establishments. The city ordinances require that public record shall be kept of the license and engine numbers, the old and new ownership, and other data on each car bought or sold or that enters or leaves a garage for any purpose. The law also requires garagemen to report to the city any obliteration or defacement of license or engine number. The object is to trace stolen cars. It is said that few garagemen have been observing any part of the ordinance

Motor car dealers are participating in several of the fresh campaigns for "building up the town." Among these is a campaign of advertising, in which newspaper space to the value of about \$75,000 will be used to tell the world for what Kansas City is (and ought to be) famous. L. E. Peake is representing the dealers on this committee.

A tentative plan has been approved by the central committee managing the project for the erection of an exposition building to house the tractor and motor car shows, the American Live Stock show and similar events. It is proposed to erect a two-story steel and concrete addition to Convention Hall, where the 1919 show was held



DES MOINES

Forms Trades Bureau

DES MOINES, IOWA, July 19-Harry G. Moock, business manager of the N. A. D. A., arrived here on Monday and spent several days in conference with the officers and directors of the Iowa Motor Trades Bureau and local motor car dealers relative to the activities of the newly organized Iowa Motor Trades Bureau. Monday noon a luncheon was given for Mr. Moock by the directors of the Des Moines Motor Trades Bureau at which the officers and directors of the Iowa Motor Trades Bureau were also guests.

Miller, Searles & Boyd have opened a salesroom at 517 Mulberry Street and

will distribute Gary trucks.

F. S. Naiden has bought the Iowa Storage Battery Co., 1600 Locust Street, from Leo J. Sheridain. Mr. Sheridain will devote his time to his other battery stations in southern Iowa.

The Motor Trades Bureau of the Des Moines Chamber of Commerce has on the press a log book containing maps and complete information on all the automobile trails of Iowa. The book is neatly bound in imitation leather and an issue of 25,000 copies will be distributed free of charge to motorists.

The Atlantic Auto Co., Atlantic, Iowa, which is the original Herring concern, this week sold its building to Hansen & Lowe, an implement firm at Atlantic.

Construction work has already been started by the Atlantic Auto Co. on a new garage building, 200 x 140 ft., two stories of which will be done during the early winter.

A. C. Newcomer, Marshaltown, Iowa, has opened another sales agency at Grinnell where he will handle Maxwell cars and trucks and Moline tractors. Howard Sage will be manager of the Grinnell branch.

L. A. Dunlop, formerly with the Sears Auto Co., Des Moines, and E. T. Dunlop, formerly with the Bichel Ellis Auto Co., Wakefield, Neb., have opened a garage in Perry, Iowa.

Auto Co.'s Overland The Blessin garage at West Union, Iowa, was completely destroyed by fire this week. All the cars in the garage were saved, but a loss of about \$750 was sustained on the parts and repair stock.

The Thompson-De Jarnette Auto Co., Sioux City, Iowa, has bought a quarter block at Seventh and Douglas Streets, Sioux City, and will erect a big garage

on the property.

The Atlantic Auto Co., Atlantic, Iowa, has opened a branch at Anita, Iowa, and will handle Ford cars, trucks and Fordsons exclusively.

The Lorenz Truck Co. has dropped the Menomee truck and will in the future handle Standard trucks. The company has just moved into new quarters.

The H. W. Neumann Machine Co., 510 Main Street, Davenport, has taken the agency for Jordan cars and will have the eastern coun-

ties in lowa and a number of counties in western Illinois.

The Cedar Rapids Tire & Rubber Co., Cedar Rapids, has been incorporated and will start operations at once on a building for the production of tires and tubes. The factory will have 45,000 sq. ft. of floor space and will be in operation by late fall. H. D. Ferguson, formerly with the Hartford Tire

Co., is president of the company.
R. M. Scnorr and Donald Morgan, of
Spencer, Ia., have bought the Dort agency there from M. C. Koch. Both members of the new firm have recently returned from service overseas.

ST. LOUIS

Widens Garage Zone

ST. LOUIS, July 19—Garages may be operated in the downtown district east of Twelfth Street after Aug. 9. The lifting of this ban is one of the feaures of the new parking ordinance, which becomes effective then and which prohibits the parking of motor cars in this congested district for more than an hour. The time limit as it now stands is two hours.

The ordinance provides that fireproof garages of any height not prohibited by the building-zone law, may be erected in the downtown district, and garages not exceeding one-story in height may be maintained without being made of fireproof material.

It is expected that day-time garages will be put in operation as a demand for them is presented by the enforcement of the new parking law.

Automotive accessory dealers have been doing a rushing business in the sale of lenses to meet the requirements of the new city ordinance requiring the use of dimmed headlights.

The used car show of the Newell Motor Car Co., Paige and Stearns distributer, at the Coliseum still continues. Hugh H. Shields, who is in charge, reports the sale of twenty-seven cars at the rate of one a day.

The motor truck business is improving. One of the big sales of the week was a fleet of five 2-ton Packard trucks to the Independent Packing Co., which already has two of this make in service.

C. F. Lorenz has returned from a ranch, where he has been for the last five months, to become assistant manager of the St. Louis branch of the Sterling Tire Corp. He was manager of the Reyburn Motor Car Co. and the Van Auto Co., both now out of existence, and later was with the Buick and Ford branches in St. Louis.

There was no meeting Monday of the St. Louis Storage Battery Trade Association, on account of the death of Edwin S. Pearl, who was to have been the speaker. Mr. Pearl was manager of the farm machinery and advertising departments of the local branch of Fairbanks, Morse & Co. He was a member of the Motor Accessory Trade Association.

PHILADELPHIA

Has New Dealers

PHILADELPHIA, July 19-Encouragement is found in the announcement from Harrisburg that there were approximately 300,000 more pneumatictired vehicles in use in the state on July 1, 1919, than a year before. There are almost three times as many dealers in automobiles, however, and there are seven times as many operators and three times as many drivers' licenses were issued.

The Advance Motor Sales Corp., 514-516 North Broad Street, which recently took on the Elgin Six, has just clased for the distribution, in this territory, of the Anderson Six.

The Park Auto Co. has closed a deal to handle the Champion passenger car, manufactured by the Direct-Drive Motor Co. of Pottstown, Pa.

Percy L. Neel, president of the Automobile Sales Corp., announces the following new directorships in his company: N. S. Jergenson, Reading manager for the last three years; J. B. Dickson, appointed superintendent of the company in 1912; E. C. Field, auditor; B. S. Neel, treasurer, and Ralph W. Cook, who, as mentioned in the July 16 issue of Motor World, has just been made general and sales manager. The other directors are Percy L. Neel, president; W. J. Neel, J. R. McAllister and E. Spencer Miller.

The new branch manager of the Braender Rubber & Tire Co. here is R. B. Parker, formerly assistant manager of the same branch. E. J. Smullen, former manager of the Philadelphia branch, has resigned to take the agency for the Standard Eight in Chester, Pa. Mr. Parker announces that he will increase the office force as well as the sales

Incorporated under the laws of Delaware, the Pressman Tire & Rubber Co. has established eight distributing branches in Eastern cities as follows: Boston, Baltimore, Harrisburg, Scranton, Wilkes-Barre, Easton, Allentown and main temporary headquarters in Philadelphia, 300-302 North Broad Street. Recently announcement was made of the preparation of the present Maxwell-Chalmers headquarters as the future home of the Phliadelphia office of the Pressman Tire & Rubber Co. Other cities in which branches soon will be established are New York, Pittsburgh, Chicago, Cleveland, Detroit, St. Louis and San Francisco. One hundred branch stores are expected to be in operation within a year.

The 3-story showroom and service station building occupied by the Oakland Motor Car Co., Philadelphia, at 918 North Broad Street, has been purchased by Benjamin Barron, representing Samuel Gorson. Gorson conducts a used car exchange on North Broad Street.

Selden Co. Increases Stock

ROCHESTER, N. Y., July 19-Plans by which the Selden Truck Sales Co. of this city will increase its capitalization to \$1,300,000 were announced here to-day by George C. Gordon, the president.



MILWAUKEE

Sees Better Business

MILWAUKEE, WIS., July 21—Improvement in deliveries of passenger cars has become noticeable to a slight but encouraging extent and distributers as well as dealers are beginning to feel that material relief from the acute shortage of cars is about in sight. The demand for cars continues to be the most active ever known, despite high prices and war taxes.

The announcements made in the last week or ten days by a number of the leading manufacturers of their 1920 lines and the general knowledge that is coming forward about future values being in the ascendancy rather than on the decline has brought many people into the market who had been holding off because of a belief that lists would undergo a material reduction after July 1. While dealers in general report increased deliveries, complaint is heard that production has not yet reached the point where it becomes possible to effect any sort of an accumulation of stocks. The cars now being received are applied largely on back orders and new customers are compelled to wait in many cases almost as long as those who are just getting their cars.

Motor truck dealers report an excellent demand. Tractor business is in its usual mid-summer slack period, this being the season when farmers are busier than at any other time of the year with the harvest. Nevertheless, some good sales are being made right along and some excellent prospects are being created for business early in the fall.

The Central Electric Lamp Co., Milwuakee, has been incorporated with a capital stock of \$5,000 to manufacture and deal in electric lamp bulbs and accessories. The prime mover is Louis Helf, general manager of the Empire Lamp Works.

Emil Hokanson, one of the pioneers among Buick dealers, has disposed of the Hokanson-Buick Co., 16-20 East Doty Street, Madison, Wis., in order to devote his entire time to the general management of the Wisconsin Oakland Co., Milwaukee, distributer of the Oakland in Wisconsin and Upper Michigan. Hokanson acquired this concern on Jan. 1, since which time the management has been in charge of William N. Thompson, who has been a member of the Hokanson concern since 1906. Thompson will continue to be associated in the Oakland distribution.

B. E. Lawton, Zala Baldwin and Harry C. Henderson of Madison have taken over the business of the Hokanson-Buick Co. and will occupy the same quarters at Madison. It holds the Buick franchise contiguous to Madison.

The Lorch Garage, Monroe, Wis., has resumed its former name of Knoble & Lorch, J. F. Lorch being rejoined in the business

by Tobias Knoble, who sold his interest two years ago to join the colors.

Frank Tank, proprietor of Tank's Garage, Rhinelander, Wis., is a new Paige dealer in Oneida county and vicinity. Mr. Tank will continue as Buick dealer.

Jack McCann, Appleton, Wis., has been appointed Cadillac dealer and on Aug. 1 will open a salesroom, garage and service station in the Schreiter Building on College Avenue.

The Wisconsin Motor Car Co. of Milwaukee has been organized to become distributer of the Jordan in Wisconsin and upper Michigan. Headquarters have been established at Kenilworth Place and Prospect Avenue, Milwaukee. The partners are H. M. Glover, O. G. Heffinger and Edward Bluthardt. F. A. Colare has been named sales manager, and Fred Goode will be manager of the wholesale department.

Elmer Tuttle, Antigo, Wis., Grant Six dealer, is enlarging his business to include a general repair and service station, having erected a new fireproof building for this purpose. This will be conducted as the Service Automobile Co.

The Green Bay Motor Car Co., Green Bay, Wis., has been appointed dealer and sub-distributer of the Cole 8 in northern Wisconsin and upper Michigan.

John Ter Maat, Plymouth, Wis., has been appointed dealer in the Cletrac, formerly Cleveland tractor, in Plymouth and vicinity.

The West Point Tire & Supply Co., Milwaukee, has been organized by R. W. Smith, formerly with the Milwaukee Ajax branch, and will distribute Liberty vulcanizers in the Wisconsin territory. It also will deal in tires, tubes and accessories, with store and shop at Twenty-seventh and State streets.

Arthur E. Thessin and Walter H. Schroeder, Milwaukee, have opened a general tire store and gasoline filling station at 450 Eleventh Avenue, under the style of Thessin & Schroeder.

Goodyear Announces Unlimited Guarantee

AKRON, OHIO, July 19—The Goodyear Tire & Rubber Co. announces an unlimited guarantee on all tires made by that company—whether pneumatic, solid or cushion—the guarantee covering their entire life, without limitation as to mileage or length of service.

COLUMBUS

Plans Tractor Show

COLUMBUS, OHIO, July 19—Plans have been completed for the big tractor demonstration to be held here July 28 and 29, the first of four to be held in Ohio this fall in charge of Prof. H. C. Ramsower of the agricultural engineering department of the Ohio State University. The other demonstrations will be at Piqua, August 1 and 2; Fostoria, August 6 and 7, and Akron, August 12 and 13.

Many miles of highways in Ohio will be improved when bids that were opened July 11 and 18 are tabulated and the contracts awarded. On the whole, through the two road contract lettings, 447.66 miles of good roads will be built. The Ohio Highway Commission is busy on other contracts to be awarded next month.

The Tractor Power Farming Co. of Columbus has been incorporated with a capital of \$22,000 to operate tractors for farming purposes. The plan is to rent out tractors to farmers. The incorporators are C. A. Bryant, G. H. Sheperd, L. W. Erb, W. L. Martin, and R. B. Judd.

Harry J. Schwartz, president of the Standard Motor Car Co., central Ohio distributor for the Hudson, is having plans prepared for a new garage building at Fourth and Broad streets.

Frank Harshaw, who was assistant foreign sales manager of the Studebaker Corp. for three years, is the latest addition to the office force of the Allen Motor Co. of Columbus. He has been placed in charge of the export department. He believes that American-made motors will dominate the European market for at least two years because of the vast drain made on the resources of the Old World by the war. He is enthusiastic over the export possibilities to many South American countries.

Where Mid-West Tractor Winter Show Will Be Held



WICHITA, Kan., July 18—The Mid-West Tractor-Thresher-Power Farm machinery show will be held at Wichita Feb. 3-14, 1920. The Forum, which is a big two-story building, covering an entire city block, will house the exhibition. There have been a number of reports to the effect that this show would supercede the Kansas City show, to be held next winter, but this is without foundation, according to Howard Seely, chairman of the N. I. V. A. Committee on locations, who is authority for the statement that both the Kansas City and Wichita shows will be held as scheduled. The Wichita show will be under the suspices of the Wichita Thresher-Tractor Club.



Good Fun!

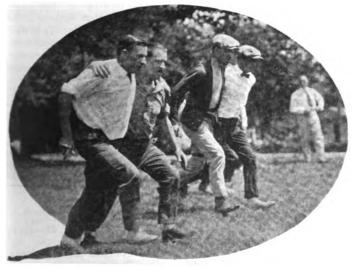
The Rochester Auto Trades Association, each and every one, closed its salesroom doors one hot day in July and cast aside the cares of business for the "delectable delirium" of an afternoon off. Result, a "good time was had by all" and worries faded away

Here are some pictures of the day's doings—a shoe race, a tire race, chasing a greased pig, and a three-legged race. The last picture shows some of the grinning dealers and salesmen

E



Have you ever tried the hot weather antidote of forgetting your business for a few hours? Just cast it entirely from your mind. Get it out of your thoughts. Next day, with a clear brain, you will return to the job with the energy and enthusiasm that means better sales and bigger profits. The Rochester dealers found it worked out that way. They suggest you DO THE SAME THING





NEW DEALERS WANT PROFIT BASIS FIXED

N. A. D. A. Asks for Pre-War Records to Help Firms Established Since 1914

ST. LOUIS, MO., July 18—The National Automobile Dealers' Association has taken up with Revenue Commissioner Roper the question of how much investel capital a motor car concern may take as a war-profit credit in its return of income under paragraph 2, sub-section C of Section 311 of the War Revenue Act of 1918.

The decision was asked at the request of a Kansas City member whose firm began business in 1915, and has no prewar average upon which to figure its profits. The dealer asked that his business may have a different classification from such lines as wholesale dry goods, butchers, grocers or the like.

Harry G. Moock, business manager of the N. A. D. A., estimates that the ruling will affect about 50 per cent of the dealers of the country, who entered the field since 1914 or whose bookkeeping methods have been incomplete.

Instructions have been issued by Commissioner Roper that the company should take 10 per cent of its invested capital for the taxable year to figure out its amount for credit until a list of the medians can be arrived at, which probably will be within the next 30 days.

The profits reported by one dealer were 37 per cent net on his invested capital for the pre-war period, another's profit was 50 per cent. An average of 97 per cent on both invested capital of \$10,000 and borrowed capital of \$60,000 was made by one company.

Dealers who were in business in the pre-war period are being asked by the N. A. D. A. to furnish a statement of their profits immediately to help to arrive at these medians. If a sum greater than 10 per cent is allowed refunds will be arranged and credit to be taken in successive payments will be allowed.

PEERLESS CONTROL BACK TO CLEVELAND

CLEVELAND, July 19—Ownership of 75 per cent of the stock and control of the Peerless Truck & Motor Corp. returned to Cleveland when new directors and officers were elected. Cleveland now has ten directors and New York three.

B. G. Tremaine, of the National Electric Lamp Co., is president of the Peerless Truck & Motor Corp. Other officers are: Vice-president, F. S. Terry, of the National Electric Lamp Co.; vice-president and general manager, T. W. Frech, of this city; treasurer and attorney, H. A. Tremaine; secretary, George B. Siddall.

These five officers with Lyman H. Treadway, president of the Peck, Stow, Wilcox Co., and a director of the Federal Reserve bank; Walter C. Baker, former president of the American Ball Bearing

Co.; Roland T. Meacham, investment banker, who has been active in handling Peerless securities; Mr. Siddall, and William Starring, all of Cleveland, are on the new board of directors. The New York men who will continue on the directorate are Harrison Williams, who was president of the corporation; E. W. Harden and William E. S. Griswold. Mr. Harden is the Rockefeller representative on the board, and Mr. Griswold represents the National City Bank.

Business of a satisfactory nature is reported at the Peerless plant. About 5000 passenger cars are to be made this season, it is said, although plans are being developed for a much larger capacity next year. This year's output will consist of 60 per cent open and 40 per cent closed cars. Alterations in the factory costing \$130,000 are under way to enlarge the body building department. With this done a production in the neighborhood of 10,000 cars may be looked for in 1920.

PLANS FOR GLIDDEN TOUR GRADUALLY SHAPING UP

NEW YORK, July 22—The proposed revival next year of the Glidden tour is scheduled for consideration at the midwinter meeting of the A. A. A., by which time it is believed manufacturers will have been sounded out as to their inclinations to enter cars in a cross-continent tour.

The A. A. A. touring bureau already has mapped out a tentative route, from New York to San Francisco, over which it is believed the running time, taking into account local speed laws and regulation night and mealtime stops, would be three weeks to a month.

The committee, headed by Richard Kennerdell of the A. A. A. contest board, sees no obstacle to the tour outside of a possibility that the manufacturers, hard pressed to keep production up to demands—if this condition continues into 1920—may not see their way clear to prepare cars and crews for the run and foot the operating bill, running into several thousand dollars. However, the committeemen look for a stabilizing of the industry before next fall and have strong hopes of conducting the tour, with a large field of entrants.

Company to Make Magnetos

DAYTON, July 19—The Recording & Computing Machines Co. will commence manufacturing magnetos, combination magneto and generator, self starters and automatic mechanical gear shifts. Production of the magneto will start within the next thirty days. Since 1914 the company has been making munitions for the allied governments and the United States.

Hart & Whetson Enlarge

CHICAGO, July 19—Hart & Whetson, jobbers of automotive equipment, have leased larger quarters at Jackson Boulevard and Peoria Street. The company at present is located at 5 North LaSalle Street.

COMMISSION URGES PRICE MAINTENANCE

Recommendation Renewed to Permit Manufacturers to Fix Resale Price

WASHINGTON, July 21—The recommendation made last December that manufacturers be permitted by law to fix and maintain resale prices, subject to review by a disinterested agency, was renewed by the Federal Trade Commission in a special report to Congress.

Under the Commission recommendation, manufacturers desiring to fix and maintain resale prices would file with an agency to be designated by Congress descriptions of their articles, contracts of sale, and the price schedules to be maintained. The disinterested agency would be charged with the duty, "upon complaint of any dealer or consumer or other party at interest," to review the terms of contracts and prices.

The Commission's recommendations, it it stated, were based on the following conclusions: (1) That producers of identified goods should be protected in their intangible property right or goodwill, created through years of fair dealing and of sustained quality of merchandise; (2) That the unlimited power both to fix and to enforce and maintain resale prices may not be made lawful with safety; and (3) That unrestrained price-cutting is not in the public interest, and tends, in the long run, to impair, if not to destroy, the production and distribution of articles desirable to the public.

N. A. D. A. SAVES MONEY FOR INQUIRING DEALERS

ST. LOUIS, MO., July 19—A Kansas dealer asked the National Automobile Dealers' Association six questions concerning the application of the war tax to his business, writing a two-page. single spaced typewritten letter. The letter as handled by the War Tax Rulings Bureau of the legal department of the association cost \$1.16 to answer.

To ascertain just how much the dealer saved on this advice alone by being a member of the association, Harry G. Moock, business manager, turned the letter over to a firm of certified public accountants. Their charge would have been \$50 for answering the letter. A firm of attorneys wanted \$75.

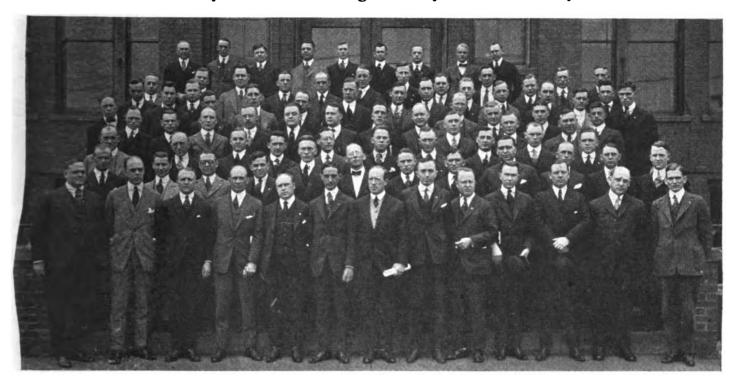
The dealer got an instant reply from the association.

Fordson Production at New Mark

DEARBORN, MICH., July 21—More than 1200 tractors were made and shipped from the Fordson plant at Dearborn last week. The daily average was 200 complete machines. Production will be increased to 400 as rapidly as possible.



Goodyear Service Managers Study Craft at Factory



Top Row-A. B. Hagar, Kansas City; A. J. Cole, Kansas City; C. H. Lockhard, Springfield; C. F. Rentschler, Kansas City; E. H. Schoner, Sales School, Ak:on; W. W. Council, New Orleans; M. A. Francis, Dallas; G. W. MacIlwain, Akron; W. H. Sorn, Akron.

Second Row-D. M. Vance, Akron; W. W. Hicks, Akron; F. W. Fox, Akron; C. I. Rodgers, Joplin; L. E. Turner, Hartford; David Herr, Jr., Milwaukee; G. M. Patton, St. Louis; P. W. Senour, Detroit; F. J. Ryan, Rochester; W. L. Armstrong, Necond Row—D. M. Vance, Akron; W. W. Hicks, Akron; F. W. Fox, Akron; C. I. Rodgers, Joplin; L. E. Turner, Hartford; David Herr, Jr., Milwaukee; G. M. Patton, St. Louis; P. W. Senour, Detroit; F. J. Ryan, Rochester; W. L. Armstrong, dealers' sales, Akron.

Third Row—E. S. Dalton, Houston; R. Chatfield, Sidney, Australia; C. C. Grey, San Antonio; V. P. Dunply, Phoenix; P. P. Baugh, Dayton; J. C. Francis, Newark; T. K. Sedgwick, New York; G. E. Going, Newark; F. I. Irwin, Omaha; J. F. Herbert, Rochester; M. N. Stewart, Des Moines; H. C. McEvoy, Baltim Die; E. Sarvene, Detroit; R. E. Campbell, Washington; R. B. Railey, Charlotte; E. S. Barden, Detroit; A. D. Chapin, Joplin.

Fourth Row—J. T. Ford, Syracuse; A. J. Herd, Albany; H. L. Waldron, New York; H. R. Hughes, Syracuse; C. H. Lathan, Philadelphia; H. J. Ryan, Philadelphia; S. J. Keating, Scranton; L. C. Richards, Richmond; I. D. Starkey, Akron branch; C. Van Arsdale, Oklahoma City; W. S. Thomas, Dallas; G. A. Matthews, Buffalo; S. E. Aiguier, Oklahoma City; M. L. Smith, Buffalo; T. B. Dunn, Louisville; C. C. Radford, Atlanta,

Fifth Row—W. E. Finney, San Francisco; W. D. Van Wormer, Albany; C. T. Harvout, Cincinnati; T. M. Powers, Akron; H. M. Shackelford, San Francisco; D. O. Hubbard, Columbus; W. L. Moorow, San Antonio; E. M. Hailey, Houston; R. A. Pillar, St. Louis; M. L. Henderson, Portland, Ore; J. B. Hutchins, Sacramento.

Sixth Row—R. E. Pond, Denver; G. W. Lander, Cincinnati; P. S. Lewis, Indianapolis; E. F. Hanson, Dayton; J. A. Griffith, Fresno; C. J. Ernest, Spokane; J. Fent, Los Angeles; C. B. Hoffert, Birmingham; W. N. Armor, Jacksonville; R. R. Shaw, Bottom Row—Lake Jones, Instructor Sales School, Akron; G. C. Houser, Indianapolis; L. J. Barnhoffen, Akron; J. G. Bedford, New York; C. P. Houghton, Chicago; L. A. Cupps, Memphis; P. H. Moulton, Los Angeles; E. P. Slabaugh, Salt Lake City; W. S. Lyons, Cleveland; A. F. La Rose, Boston; R. E. Wilson, assistant instructor, Sales School, Akron.

NEW YORK MOTOR CARS PASS HALF-MILLION MARK

NEW YORK, July 22-Distributers and dealers throughout the state are taking a lion's share of the credit for making the automobile registration of New York one-tenth the nation's total. Official figures of Secretary of State Hugo, which not only record past, but forecast future prosperity for dealers in cars, show more than 500,000 motor vehicles registered, with prospects of a 525,000 total by the end of the year.

The secretary reported a marked increase in the commercial vehicle "population," adding that 20 per cent of all the state's machines were owned by farmers.

Auburn Prices Higher

AUBURN, IND., July 19-Price innounced here to-day by the Auburn creases for the Auburn line were an-Automobile Co., the manufacturers of that car. The four and five passenger models are advanced to \$1,695, an increase of \$100, while the 4-passenger

coupe and the 5-passenger sedan are placed at \$2,375.

Buick Closed Models Higher

FLINT, MICH., July 19-Increased prices on closed models, with the open models remaining as before, were announced here to-day by the Buick Motor Co. The lists are as follows:

New Price Old Price

Three-passenger roadster\$1,495	\$1,495
Five-passenger touring car. 1,495	1,495
Seven-passenger touring 1,785	1,785
Touring coupé 2,085	1,985
5-passenger touring sedan, 2,255	2.195
Seven-passenger sedan 2,695	2 585

All Columbia Models Advance

DETROIT, July 21-The Columbia Motors Co. has increased the price of all models. The new prices are effective at midnight July 15 and consist of a \$100 increase on open cars and \$400 on inclosed models. The new and old prices are as follows:

Model		New Price	Old Price
Standard	Touring	car\$1,695	\$1,600
Sport Mo	del	1,845	1.745
		1,845	1,745
		2.850	2,445
Coupé		2,850	2,445

MAIBOHM ANNOUNCES CHANGED CAR DESIGN

DETROIT, MICH, July 19-Greater comfort and increased strength, as well as new body design, feature the new models of the Maibohm line, the announcement of which have just been made by the Maibohm Motors Co. The coming model has a phaeton body with slightly lower cowl and a pronounced bevel line extending the entire length of the car, giving a smarter and more handsome appearance. The frame and springs are increased in strength for more comfortable riding.

In line with the principle of easier riding and more comfortable qualities, a more flexible and deeper seat cushion and back springs have been added. Motor and mechanical equipment remain unchanged.

A price increase of \$105 also was announced, the new figures being:

Chassis .										. :	\$126	0
Phaeton .											139	5
Sedan											199	15
Roadster											139	5
Brougham											199	5





At the Wichita Tractor Demonstration last week the vast array of tents was one

STANDARD RATING FOR FARM LIGHTS

S. A. E. 72-Hour Intermittent Time Test Adopted— Relation of Parts Manufacturers

CHICAGO, July 18—The question of rating farm light batteries was decided yesterday at a meeting of the Isolated Electric Plant Manufacturers section of the National Gas Engine Association. The rating adopted is the 72 hr. intermittent elapsed time test as was proposed at the national meeting of the S. A. E. while in session at Ottawa Beach, and which is now in the final stages of being accepted.

Farm light manufacturers have long been undecided as to the rating of their batteries. This hesitancy of decision has not been caused by lack of the proper knowledge concerning the proper rating of the battery, but rather by the lack of organization among the producers. Now that the organization has been brought about, the adoption of a standard was at once made possible.

once made possible.

Some of the manufacturers were reluctant to adopt this intermittent rating, stating that the intermittent rating did not fairly represent the batteries' capacity. However, the adoption of one standard gives a reasonable basis for making comparisons.

In the event that the standard S. A. E. intermittent test, now completed and awaiting distribution in pamphlet form to the manufacturers, should not be accepted by all manufacturers provision was made for the adoption of any other standard that the S. A. E. may propose.

The question of the proper status and relation of the parts manufacturer to the Isolated Electric Plant manufacturing section was discussed. It was not thought advisable that the parts manufacturer should be given a voting right in the proceedings of the organization.

As finally proposed by R. H. Grant,

sales manager of the Domestic Engineering Co., Dayton, Ohio, chairman of the reporting committee, the status of everyone with relation to the organization is to be as follows: Manufacturers of complete and partially complete plants were eligible to membership in the organization with a voting power. Parts manufacturers were also eligible to membership but were not to have the power of vote. Further action on this question will be taken at the next meeting.

Henry Kennedy, vice-president, Lalley Light Corp., spoke on "Service to Be Given by the Manufacturer, Distributer and Dealer." The 90-day guarantee was urged in favor of the one year or more blanket guarantee, which was given in the past.

CLIFTON AGAIN PRESIDENT OF NATIONAL CHAMBER

NEW YORK, July 19—The National Automobile Chamber of Commerce announced to-day that Charles Clifton, president, and other officers were reelected at the directors' meeting in Buffalo yesterday.

Aside from Mr. Clifton, who is with the Pierce-Arrow organization, the officers are: First vice-president, Hugh Chalmers, Chalmers Motor Co.; second vice-president (passenger car division), R. D. Chapin, Hudson Motor Car Co.; second vice-president (motor truck division), Windsor T. White, White Motor Co.; secretary, C. C. Hanch, Maxwell Motor Co.; treasurer, H. H. Rice, Chevrolet Motor Co.

Jordan Adds Distributers

CLEVELAND, July 19—During the last few days a number of important additions have been made to the Jordan distributing organization:

Wisconsin Motor Car Co., Milwankee, Wis.; Sears Automobile Co., Des Moines, Iowa; Peterson-Hayward Motor Co., Omaha, Neb.; Hugh K. Dabney, Richmond, Va.: G. E. Gooderham & Co., Ltd., Toronto, Ont.: F. S. Woolston, Billings, Mont.; H. W. Neuman Machine Co., Davenport, Iowa.

TRACTOR DEMONSTRATION DRAWS LOUISIANA CROWD

NEW ORLEANS, July 22—A demonstration of tractors played an important part in the twelfth annual field day of the Louisiana Sugar Planters' Association at the sugar experiment station, Audubon Park, in mid-July. The demonstration was the largest ever held in the South and was devoted to showing the double ideal of efficiency and economy of the tractor as applied to sugar cane cultivation, harvesting and handling.

Double equipment, one for heavy work and the other for light, was shown to be the best, soft ground being no longer the problem that it was when tractors were first introduced on the sugar plantations.

Nearly 500 men, most of them young students of agriculture, attended the demonstration. The tractors were used on the station fields, where considerable crops of cane are grown each year, and everything was done from digging ditches and tickling the rows of young cane, to cutting and hauling the ripened product out of the field. Much improvement was shown in all the processes. One appliance destroyed the stubble and prepared the row for new planting at the same time, while another was a two-wheeled, straddle-row motor cultivator.

The firms showing tractors and new appliances for use with them were: Moline Plow Co., J. I. Case Co., Menge Pump & Machinery Co., Owensboro Grader & Ditcher Co., John Deere Plow Co., Allis-Chalmers Manufacturing Co., International Harvester Co., Buckmaster-Luck-Malochee Co., Thomson Machine Co., Southern Motor Co., Parrett Tractor Co., Russell Grader Manufacturing Co., W. T. King Cooperage Co., Fisher Fuel Oil Burner Co., and Mobile Tractor Co.

A Correction

In MOTOR WORLD'S description last week of the new Cleveland car the price was stated as \$1,365. It should have been \$1,385.





if the imposing parts of the spectacle. Some of them rivaled a circus in size

CHANCE OF REMOVING REVENUE TAX ON TRUCKS

NEW YORK, July 22—Manager Al Reeves of the National Automobile Chamber of Commerce expressed the hope today that the government would remove the special revenue tax on trucks—3 per cent of value—by January 1. Reports from the chamber's Washington bureau, he said, gave no hope of lifting of the passenger car and parts taxes, owing to the government's revenue needs.

The chamber had given up hope, Reeves added, of inducing the department to collect taxes on parts from dealers, rather than manufacturers, a change which would have eliminated much unnecessary bookkeeping and done away with inequalities in passing the tax on to the consumer, which are unavoidable under the present plan.

NEW BAY STATE LAWS AFFECT CAR DEALERS

BOSTON, July 19—Four measures of major importance affecting the motor industry and motor users have been passed by the present Massachusetts legislature. And now there is misunderstanding as to when they go into effect in different parts of the State.

One law compels all owners of taxicabs, motor trucks and commercial vehicles to equip their vehicles with mirrors so that it will be possible for drivers to see what is behind. This law was passed June 4, but does not take effect until September 8.

Another law relates to theft of motor cars, making the penalty for stealing not less than five nor more than ten

Another act changes fees for motor trucks. This was the bill over which the biggest fight was made. The rates have been changed from \$5 for one ton and \$3 for each additional ton to \$10 per ton flat, effective October 7.

According to the Highway Commission all vehicles registered after October 1 get half rates. So if a man bought a 5-ton truck early in October and rushed up to register October 6 it would cost

him \$8.50. If he went October 7 he would pay \$25. A letter has been sent to Senator John Beck, who was one of the leaders in the fight both last year and this, to see that dealers and owners of commercial vehicles are not taxed unjustly. He has been asked to take the matter up to pass an emergency bill that would place the new fees in effect January.

Another law regulates the sale of used cars and trucks. It goes into effect September 25. When the motorists in general wake up to one of the provisions they may have something to say about legislation. It provides that no owner of a motor car may sell his or her vehicle to any other person, brother, sister, mother, father, any relative or friend without going to the police and the Highway Commission and getting permission.

The legislature is not to blame for the provision. Motorists fought it in committee. Then there was a conference, and according to the attorney for the motor dealers, this provision was to be stricken out if opposition was withdrawn. The agreement was not carried out, apparently. The police officials were insistent that this clause should be in the bill

This measure provides that dealers in new cars shall be in class 1 as dealers; those selling used cars for a business are in class 2, while those who buy cars to junk them are in class 3.

All must take out licenses to do business, but no license is to be more than \$50 a year.

Reports must be made each week by those in the first class, and every day by those in classes 2 and 3, to the Highway Commission and the police authorities, telling what cars they have taken in. All cars must be held four days by those under classes 2 and 3, but the new car dealers do not have to hold their machines.

The reports must contain all the numbers on the car for identification, the name of the man who sold it, the one who owned it, the one to whom it was sold, etc. By getting permission from the police a dealer under classes 2 and 3 may sell any vehicle without waiting the four days.

CALIFORNIA VOTES \$40,000,000 BONDS

New Road Issue Doubles Road Funds—Will Link All of the Larger Cities

LOS ANGELES, July 18—California has voted in the ratio of 7 to 1 in favor of a good roads bond issue of \$40,000,000. This is approximately \$80,000,000 worth of state bonds that have been issued for road extension in this state within the last eight years. The appropriation will include funds for completing gaps on several highways.

California is the second state in area in the United States and has a population of approximately three million. For a population as small as this to assume the responsibilities of \$80,000,000 in bonds shows how anxious its citizens are for the state to excel in permanent highways. The highway system of the state calls for the two main arteries north and south from Oregon to Mexico with numerous crossroads. When ultimately completed, the state's roads will resemble an immense ladder.

All of the larger cities will be on or in close proximity to one of the main highways or intersections. Road construction in some parts of the state is excessively expensive owing to mountainous conditions. In other sections, the highways must penetrate desert land and, although the cost of materials and supplies for this kind of work is not so high, the price of labor is extreme.

The new issue makes provision for other than permanent improvement of roads, also. There are some sections of the state where better roads are needed but where the traffic is not so heavy as to require concrete or macadam pavement. In these parts the highways will be graded and the surface oiled.

The citizens of California have been educated to the utilitarian advantages of good roads. Motor truck freight routes are going into business in many sections. They are competing with the railroads and doing it successfully. Shippers derive the benefit of lower rates.

U. S. MANUFACTURERS ENTER GRAND PRIX?

Change of Indianapolis Rules Encourages Lighter Cars for Racing

NEW YORK, July 19—Contest officials of the American Automobile Association and racing men here declare that reports from manufacturing centers indicate consideration by several leading producers of the question of designing cars to enter in the French Grand Prix next year.

In view of the fact that the Indianapolis speedway authorities have changed the specifications for entrants in the 1920 sweepstakes, establishing 183 cu. in. as the standard piston displacement—equivalent to the French 3 liter ruling—it is said that the factory heads have been encouraged to go ahead with plans for new creations, which could serve the double purpose of appearing on the track in this country and abroad.

The new Indianapolis specifications, bringing lighter cars and smaller engines to the fore, are expected to prevail as well on most of the lesser American tracks next year, though it is probable that a few contests will be held of racing cars now in the field and good for another season's work.

Except for a few two and three car races to be held this month and next only one day's racing remains on the Sheepshead Bay program this year. The card, which may bring about a revival of the Astor Cup competition and offer a 200 or 250-mile event, is scheduled for Sept. 13, the original date having been advanced one week. It is expected that the Chevrolets, De Palma, Wilcox and a score or more of the country's leading drivers will appear at this meet.

INDIANAPOLIS, July 22—Intended to encourage production of roomy, comfortable cars, of light weight and with low operating cost, the specifications for the 1920 500-mile sweepstakes include, aside from the 183 cu. in. piston displacement, the following details:

Minimum weight, 1700 lb., with no ballast allowed; standard tread, 56 in.; seats may be staggered 8 in.; right hand drive, qualifying speed, average of 80 m.p.h for four laps, 10 miles.

LOUISIANA WILL SPEND \$10,000,000 ON ROADS

NEW ORLEANS, July 21—Impelled largely by the constant effort of the Motor League of Louisiana, and the appeals of thousands of automobile owners throughout the state, the state highway department will issue during 1919 contracts for the construction and improvement of highways totaling something more than \$10,000,000. Plans have

been drawn to cover Louisiana with a network of roads connecting every parish seat, and linking the state system with the highways of every state whose borders touch those of Louisiana. Many of these roads were started before the war. Completion was held up because of shortage of materials and lack of labor, but since the signing of the armistice the work has been resumed and the close of 1919 will find many broad concrete and vitrified brick highways where before wandered nearly impassable trails of dirt and mud.

Seventeen parishes are now constructing roads, with the financial aid of the state highway department and the Federal Government, at a cost of \$2,-143,915. Contracts for these roads call for completion in 1919. These alone will add 467.13 miles of new road to the highway system of the state.

BERGOUGNAN MAKING TIRES IN AMERICA

NEW YORK, July 22—The Establissements Bergougnan, one of the world's largest tire producers, has announced opening of an American factory—at Trenton, N. J.—where pneumatic tires already are in production and plans in the making for turning out solid tires.

The Bergougnan company, with its main plant at Clermont-Ferrand, France, where 6000 persons are employed, also manufactures tires in Italy and Russia. The founder of the concern, Raymond Bergougnan, gave valuable assistance to the French government by working out a system of supplying tires for the army transport division.

The American company, known as the Bergougnan Rubber Corp., and headed by H. H. Coleman, with Jean Grenier as vice-president and secretary, has taken over the former Delion factory at Trenton, where 500 tires a day already are being produced. These include both tires and tubes for passenger cars, manufactured according to French methods in response to a demand from American customers which could not be met, according to Grenier, by importations from France. Making of solid truck tires, he added, would be undertaken soon, together with an expansion of the plant's operations to double the present capacity.

Bergougnan has been manufacturing tires since 1889. Its pneumatic product is of the rat tread type. Its solid tires are in use in many countries.

School Opened for Mechanics

NEW ORLEANS, July 18—The Auto Mechanics School of Loyola University will open August 1 with Eugene S. Hayford, dean of the mechanical department, in charge. One hundred students were enrolled up to July 15, and the school has capacity for 50 more. The only requirement is grammar school education, and the faculty consists of Nathaniel Bird, Carl E. Lindrose, Samuel O. Melancon, Clarence G. Hicks and Foster Michon.

GOODYEAR TIRE CO. TO ERECT BIG BRANCH

Los Angeles Will Be Location of Factory Plant With Subsidiary Mill

LOS ANGELES, July 21—An important industrial announcement was that of a few days ago when the Goodyear Tire & Rubber Co., Akron, Ohio, made known its intention to establish a manufacturing plant for motor tires in this city. At the same time it was announced that the Pacific Cotton Mills Co. has been organized as a subsidiary concern and it, too, will put up a large plant. Articles of incorporation for the Goodyear Tire & Rubber Co. of California were filed yesterday. The capitalization is placed at \$20,000,000. The Pacific Cotton Mills Co. will file its papers within a few days. Its capitalization will be \$5,000,000, according to the announcement.

President F. A. Seiberling, of the Goodyear Co., is scheduled to arrive in Los Angeles within a few days. With him will come engineers who will have supervision of the construction work for both establishments. It is the plan to have both factories in operation within twelve months.

Ascot Park site and continguous land amounting to 480 acres have been bought for the location. In conjunction with the industries there will be created Goodyear Park, in which will be located homes for employees that will be built by the company. Plans already have been drawn for the houses.

The tire and rubber plant as planned will cost \$4,000,000, have a capacity of 3000 tires a day and an annual business of approximately \$15,000,000. It will employ 2500 operatives. The cotton mills will cost \$1,500,000 and will have a weekly capacity of 75,000 pounds of cord fabric and 75,000 pounds of proven fabric. It also will employ 2500 operatives. Provision will be made for the ultimate enlargement of the plants to four times their initial capacities. J. C. Drake, Harry Chandler, Lee A. Phillips, H. W. O'Melveny and J. F. Sartori are named as the incorporators.

Victory Moon Is \$1,785

ST. LOUIS, July 19—E. J. Moon, recently elected vice-president of the Moon Motor Car Co., is the designer of the Moon Victory model. The new model carries a 6-cylinder, 3½ x 4½ engine, weighs 2750 lb., has a 5-passenger body, wire wheels, and is trimmed in Spanish leather. Mr. Moon is the son of the late Joseph W. Moon, founder of the company, and recently returned from service as a lieutenant in the Motor Transport Corps. The Northwestern Motors, Lld., Liverpool, England, it is said, has secured a special permit from the British Government for the importation of fifty Moon Victory cars.





Raiph D. Webster, who has been general sales manager for the Wire Wheel Corp. of America, has severed his connection with that company and joined the Fred E. Castle Co., Detroit, distributers of the Hayes Wire Wheels.

Charles Nelhado, who has been with the Republic Motor Truck Co. for four years, has been appointed sales manager for South America and the West Indies. He has left on a trip through South and Central Amer-

C. W. Gilbert has opened a branch office at 400 North Howard Street, Baltimore, for the sale of the automotive equipment line of Staff & Eckhouse, Chicago, in Pennsylvania, Delaware, Maryland, West Virginia and the District of Columbia.

Harris N. Pickett, until recently advertising and assistant sales manager of the General Asbestos & Rubber Co., Charlestown, S. C., has been appointed advertising manager of the Ohio Trailer Co., Cleveland.

R. B. Parker has become manager of the Philadelphia branch of the Braender Rubber & Tire Co., succeeding E. J. Smullen, who will become agent for the Standard car at Chester, Pa. Parker formerly was assistant manager.

C. B. Curtiss, formerly sales manager for the Wickes Boiler Co., Saginaw, recently purchased an interest in the Bay City Foundry & Machine Co., and became sales manager of this company on July 10. He suc-

ceeds J. E. Johnson, resigned. His office will be at the factory in Lay City.

Albert A. Fair has resigned as assistant treasurer for the Ohio Savings Bank & Trust Co., to become secretary of the City Machine & Tool Co. of that place.

E. B. McCoy, for two years advertising manager of the Olds Motor Works, has been made head of the sales promotion department, a new division of the sales organization. The advertising department is now in charge of L. S. Roscoe, who was formerly assistant to Mr. McCoy.

L. E. Curphey has succeeded Fabio Sergardi as chief engineer of the Olds Motor Works. The former has been connected with the engineering department of the Olds company for several years.

U. Ellis Laselle is now superintendent of the Ford Motor Co. of Canada. Previous to assuming his new position Mr. Laselle was connected with the Ford service department of the Canadian plant for several years.

William J. Lane, for six years purchasing agent of the Maxwell Motor Co., Detroit, has resigned and is now associated with the selling force of the Trumbull Steel Co., with offices at Detroit.

R. M. Stetson, formerly with the Packard and Maxwell companies as Detroit representative, has been appointed Detroit representative of the Xardell Brothers Co.. Utica. N. Y., a builder of gasoline tanks for automobiles.

George D. Balley has been appointed sales manager of the Hinkley Motors Corp. He will take up his new duties August 1. He was formerly with the Brown-Lipe Gear Co., Syracuse, N. Y.

Earl W. McCookin has resigned as vicepresident of the M. V. Kelly Co., advertising agent of New York and Toledo and will come to Detroit Aug. 1 to represent the Mc-Beth-Evans Glass Co., manufacturer of

Walter C. Cole, former secretary of the Detroit Board of Commerce, has returned

from the army and joined the staff of the William M. Albee Co., Detroit, sales and advertising specialists for trucks and passenger car companies.

Col. Fred Glover has been made assistant general manager of the Timken-Detroit Axle Co. He was formerly vice-president of the Emerson-Brantingham Co. of Minneapolis. During the war he was in the motors division of the war department.

New York Stock Exchange Closing Quotations July 18, 1919

Fisher Body, com	82 101
Et 1 Dede 10014	
Fisher Body, pfd	
Goodrich, B. F., Co., com 841/6	841/2
Goodrich, B. F., Co., pfd1031/4	1041/2
Kelly-Springfield Tire, com1331/4	1331/2
Kelly-Springfield Tire, pfd 941/2	100
Kelsey Wheel, com 59	60
Kelsey Wheel, pfd 98	100
Lee Rubber & Tire 361/2	37
Stewart-Warner Speedometer	• • •
Stromberg Carburetor 64	65
U. S. Rubber, com1281/4	129
U. S. Rubber. pfd116%	117%
Chandler Motor Car258	260
General Motors, com2321/8	234
General Motors, pfd 92	98
General Motors, deb 89	89 1/2
Maxwell Motor, com 54	541/2
Maxwell Motor, 1st pfd 781/2	79
Maxwell Motor, 2d pfd 40	41
Pierce-Arrow, com 611/2	62
Pierce-Arrow, pfd	
Saxon Motor Car 1914	191/2
Studebaker, com	113
Studebaker, pfd101	102
Stutz Motor Car124	124%
White Motor 711/4	71%
Willys-Overland, com 37%	38
Willys-Overland, pfd 971/2	98

Lien Laws of All the States

(Continued from page 29)

and, upon conviction, shall be sentenced to a fine of not more than \$100 or imprisoned in the county jail for a term not exceeding 3 months, either or both, at the discretion of the court. L. 1913, No. 277.

RHODE ISLAND

Mechanics are entitled to liens upon articles for labor performed and expenses bestowed at the request of another.

SOUTH CAROLINA

Mechanics have liens upon articles of UTAH personal property when they have bestowed labor upon the same.

SOUTH DAKOTA

Mechanics have liens upon articles of personal property for labor performed on the same.

TENNESSEE

Garagemen, etc., have a common law lien on property repaired by them if they retain possession of it. Under Acts of 1909. Chapter 150, providing that there shall be a lien upon any vehicle... for any repairs or improvements made or fixtures or machinery furnished at the request of the owner or his agent, in favor of a mechanic, contractor, founder or machinist who undertakes the work. A mechanic has a lien for repairs for labor performed and materials furnished in repairing an automobile. Shaw vs. Webb, 174 S. W., 273. Supreme Court of Tennessee, March 6, 1915.

TEXAS

Although there is no special provision for a garageman's lien in this State, mechanics, artisans, etc., have a lien for any articles created in whole or in part by their services and for labor performed upon the same. Under Article 5665 R. S., 1911, there is a special provision for liens for work on vehicles. It has been held that though a garageman may avail himself of the lien given under these statutes he loses the lien by giving up possession of the property. Malcolm vs. Simms, 164 S. W., 224; Caldwell vs. Supply Company, 158 S. W., 1031; Ford vs. Freeman, 168 S. W., 80.

Any person bestowing labor on personal property at the request of the owner has a lien for his labor and for materials furnished in connection therewith. In the case of Westminster vs. McCurtain, 118 R. C. 564, Sept. 27, 1911, it was held that a garageman was included and had a lien for his services in repairing an automobile. mobile

VERMONT

Every person who makes, alters or repairs an article of personal property at the request of the owner has a lien thereon for his reasonable charges and may retain possession of the same until such charges are paid, and further may, if such charges remain unpaid for 3 months, and the value of the property does not exceed \$100, sell the same at public auction by posting notice in two or more places in the town of his residence for odays. places 10 days.

VIRGINIA

Mechanics have a lien for labor bestowed in improving personal property.

Persons expending labor, skill or materials on articles of personal property at the request of the owner have a lien upon such chattels for the contract price of their labor and materials or for the reasonable price of their services for a period of one year, providing that they file notice of their claim within 90 days from the date of delivering up the chattel and institute an action to foreclose their liens within 90 days after filing notice of lien. 1 R. & B. C., Sections 1154, 1157.

WEST VIRGINIA

Mechanics and artisans have liens for repairing personal property.

WISCONSIN

Every garageman or repairshop proprietor who alters, repairs or does any work on any detailed accessory, fitting or part of an automobile, motorcycle or other similar motor vehicle at the request of the owner, shall have a lien upon and may retain possession of any such accessory, fitting or part until the charges have been paid. If such debt remains unpaid for 6 months or more any garageman or repairshop proprietor may sell such detached accessory, fitting or part at private auction of public sale, and the proceeds, after first paying the expenses of sale, shall be applied in payment of the debt, the balance, if any, to be paid over to the county clerk of the county where the sale is held in trust for the debtor.

WYOMING

Mechanics have liens upon articles which they have improved by their labor.



COMING EVENTS

Races, Contests and Tours	Cincinnati, OSept. 18-20Ninth Annual, Music Hali Cincinnati Automobile
Takima, WashJuly 25-28Fifth Annual, Washington Automobile Chamber of Commerce.	Dealers' Assn., H. K Shockley, Manager. Springfield, Mass Sept. 16-20 Eastern States Exposition. J O. Simpson, General Man-
*Elgin, IllAug. 22-23Road race. *Uniontown, PaSept. 1Speedway.	ager. Detroit, MichOct. 6-11Closed Cars: Detroit Dealers'
*Sheepshead Bay, N. Y. Sept. 13Speedway. *Allentown, PaSept. 27Dirt track event.	Assn., Arena Gardens. Chicago, Ill
*Cincinnati, OOct. 1Speedway. *Trenton, N. JOct. 4Dirt track event.	tive Equipment Assn., Me- dinah Temple.
Danbury, ConnOct. 11Dirt track event.	New York, N. YJan. 3-10Grand Central Palace, National Automobile Cham-
*Tentative dates	ber of Commerce, S. A. Miles, Manager.
Meetings	Chicago, IllJan. 24-31Collseum, Cars: Drexel Pavillon; Trucks, National
Philadelphia, PaSept. 22-24Annual Convention, National Association of Purchasing	Automobile Chamber of Commerce, S. A. Miles.
Agents, Bellevue-Stratford Denver, ColOct. 1Directors' Metallary Asson Automobile Dieg Praging Asson	Manager. Kansas City, MoFeb. Fifth Annual, Kansas City Tractor Club. Guy H. Hall
Atlantic City, NJOct. 14-17Twenty-fifth Annual Convention, Marlborough - Blen-	Manager. Automotive Shows at Fairs
heim, National Hardware Association of the United	Sedalia, MoAug. 9-14Tractors, Kansas City Trac-
States. Chicago, IllNov. 8-8C on vention, Automotive	tor Club. Des Moines, IaAug. 20-29Machinery Hall. Columbus, OAug. 26-29Cars and Tractors. E. V.
Equipment Assn., Medinah Temple.	Walbor, Manager. Madison, WisAug. 26-29 Cars and Tractors.
Foreign Shows	Lincoln, NebAug. 31-Sept. 5. Cars, Trucks and Tractors. E. R. Danielson, Supt. of Concessions.
Paris, FranceOct. 15Grand Palais—International Automobile Manufacturers'	Wheeling, W. VaSept. 1-5Cars, Trucks and Tractors. Hartford, ConnSept. 1-5Connecticut Fair Assn.
Congress. London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers &	Rochester, N. YSept. 1-6Automobile Club of Rochester. E. F. Edwards, Manager.
Trades.	Spokane, WashSept. 1-6Cars, Trucks and Tractors. Milwaukee. WisSept. 8-13Milwaukee Automobile Deal-
Tractor Demonstrations	ers, Inc. Bart J. Ruddle. Manager.
Columbus, OJuly 28-29In charge of Prof. H. C Ramsower, head of Agri- cultural Engineering Dept.	Topeka, KanSept. 8-13Cars, Trucks and Tractors. Motor Hall and Machinery Field.
of Ohio State University. Piqua, OAug. 1-2In charge of Prof. H. C. Ramsower, head of Agri-	Helena, Mont
cultural Engineering Dept of Ohio State University	Peoria, III
Fostoria, OAug. 6-7In charge of Prof. H. C Ramsower. head of Agri-	Sioux City. Ia
cultural Engineering Dept	Amentown, PaSept. 15-20Lenigh County Agricultural
of Ohio State University Akron, OAug. 12-18In charge of Prof. H. C Ramsower, head of Agricultural Engineering Dept	Springfield, MassSept. 15-20Cars, Trucks and Tractors O. A. Nash, Asst. Gen. Manager.
of Ohio State University Aberdeen, S. DAug. 19-21Regional Tractor Demon-	Billings, Mont. •Sept. 16-19Cars, Trucks and Tractors. Memphis. TennSept. 20-27Cars, Trucks and Tractors.
stration under the auspices of the National Implement & Vehicle Assn.	Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors J. S. Malone, General Manager.
Los Angeles, CalSeptemberRegional Tractor Demonstration under the auspices	Pueblo, ColSept. 22-27 Cars. Trucks and Tractors J. L. Beaman Manager
of the National Implement & Vehicle Assn. Streator, IllSept. 9-12Northern Illinois Tractor &	Salem, OreSept. 22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn.,
Truck Assn. W. S. Peterman, Manager.	M. O. Wilkins, Mgr. Waterloo, IowaSept. 22-28Automobile show in connection with Waterloo Dairy
Ottawa, OntOct. 14-16Tractor and Farm Machinery, Experimental and Booth Farms, Inter-Pro-	Cattle Congress: Black Hawk County Motor Trades Bureau, G. V. Orr, Secre-
vincial Plowing Match and Tractor Demonstration.	tary
Showe	Kansas City, KanSept. 24-Oct. 4. Cars, Trucks and Tractors. Muskogee, Okla,Sept. 29-Oct. 4. Cars, Trucks and Tractors. Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. H George, General Manager.
Minnesota	Chattanooga, TennSept. 29-Oct. 4 Chattanooga Auto Dealers
Indianapolis, IndSept. 1-6State Fair. Cars and Accessories. Indianapolis Automobile Trade Assn., John	Assn. Brockton, MassSept. 30-Oct. 3.Cars.
B. Orman, Manager.	Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Deal-
Greenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett General Manager.	ers Assn. Paleigh, N. COct. 20-25Cars. Trucks and Tractors. Shreveport, LaOct. 22-27Cars, Trucks and Tractors.

Roads Associations Plan 1920 Convention

LOUISVILLE, KY., July 18—The seventeenth annual convention of the American Road Builders' Association will be held here on Feb. 9-13, 1920.

In connection with this meeting of the association which will be the Tenth American Good Roads Congress under the auspices of the A. R. B. A., there

will be also held the Eleventh National Good Roads Show.

Both the sessions of the convention and the exhibition will be held in the First Regiment Armory. About 53,000

sq. ft. of floor space will be available.

The program will cover phases of highway construction, transportation and maintenance and various related subjects

Tire Rate Book Correction

The signature of the Dunlop Tire Sales Co., New York City, in the April and July issues of *The Tire Rate Book* reads "Sales Agents, U. S. A." As the Dunlop Tire Sales Co. is sole agents in the United States for the Dunlop tires, the signature should have read, "Sole Agents."



Passenger	282

Waths 112 32x4 Waths 126 34x4 Bijur 127 32x4 Bibar 120 34x4	124 32x4 88 1866 1866 11865 2590 REVERE 4x44 Remy Remy 120 34x4 89 13 fs 1396 1328 87 11/100 1 30	6-3425 Bosch Bijur 128 32.4 % 2650	116 33x4 88 1560 1595 8AYERS 8AYERS 112 32x3) 88 †1195 1110 33x3 88 1395 1996 8CRIPPS-BOOTH	3244 QD 13450 3900 3960 5750 SENECA 6-2444 Remy Remy 112 324 SS 11395 1285 3025 C 985 985 1065 SINGER +3474 Remy Remy 108 3023 C 990	QD 4300 14500 4300 5600 STANDARD 0-4 zd Bosch Weths 138 33z5 88 6257 5230 88 4350 14500 94500 87ANLEY 8-3\frac{1}{2}25 Drxie Waths 127 34z4 89 2750 72750	2-4 zb 130 35x41 %9 4-34z51 Weths Weths 125 34x44 & 12250 2250	1475 11575 SHient Sir 6-31x4 A-Like STUDEBAKER Remy SH 1106 1106 EH-6-50 6-31x5 Remy	1685 BS 3260 S260 GTUTZ C-41x6 Deloo Remy (120 32x4) 88 2750 12850 (130 895	2800 2800 2800 A-4-8 A-5 Simms Bijur 118 32x4 SS 2485 2435 PELIE	5-2144 Kemy Kemy 1144 3244 SS 1525 1625 5-31x5‡ Remy Remy 124 33x4 SS †2035	A-48 6-31x4 Delco Delco 125 33x4 SS 7.175 X WILLYS-KNIGHT	88-4 4-4r45 Conn A-Lite 120 34r4 SS	88 1166
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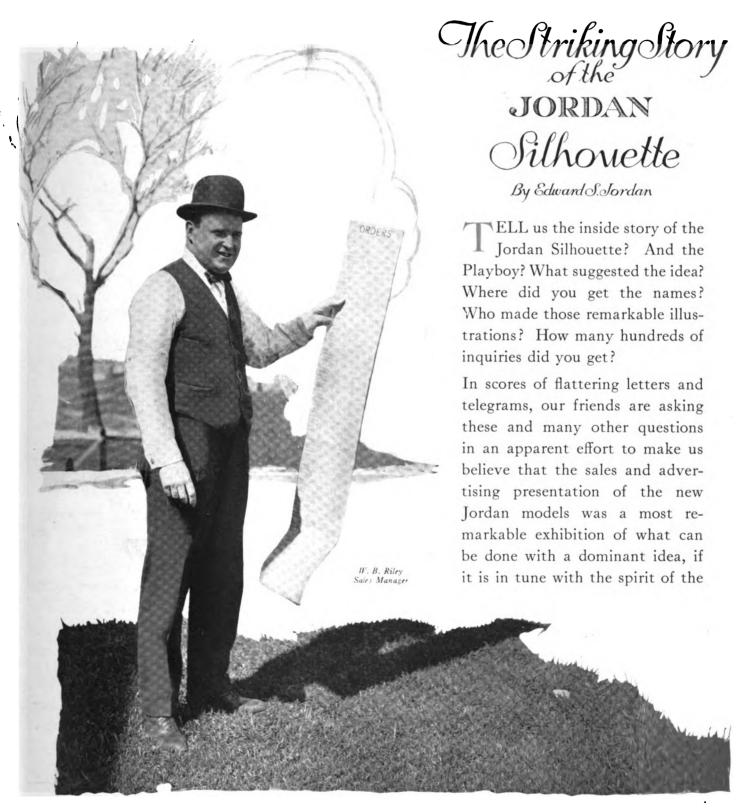
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JORDAN ARROW



times and in keeping with the public demand. Of course, we have had a lot of fun doing it. Every man and woman in the Jordan organization is happy as a result.

Engineers dream of building a perfectly balanced motor car—Russell Begg has come very near to this realization.

Artists dream of producing a wonderful picture which will excel anything previously done—Charles Daniel Frey produced those illustrations which startled the advertising world. Salesmen dream of many buyers coming in the door—Jordan salesmen have experienced this joy. Sales Managers love to think of piles of orders coming by mail and wire—William B. Riley isn't so happy now. He is hoarse from explaining, long distance, that he can't deliver for weeks to come.





Here is Russell Begg (on the right,) with Carl Landane, who builds model cars for Jordan

But it's a great life, so I will tell you the inside story.

How the Silhouette Happened

PEOPLE are gifted with six senses — five that are commonly known — the sixth is equilibrium or balance, and doctors say this sense is governed by little canals in the ear. The first sense is sight. We knew people were growing weary of motor cars that looked like all the rest. The bevel edge body was becoming painful through common imitation.

Styles travel with the sun, from east to west. So we went to Paris for an idea. Three points make or break a body design — the dash, the seat cowl and the height. The secret of the remainder is in door shapes, mouldings and appointments.

The second sense is feeling. It's in the leather, the Marshall cushion springs, the balanced chassis, the all-vanadium steel springs, the arrangement of the seats and the tilt of cushions.

Taste and atmosphere are in the appointments, the cut of the top, the boot and saddle bag, the rugs, the rear glass, the fenders, the instrument board, the curtains and the little details.

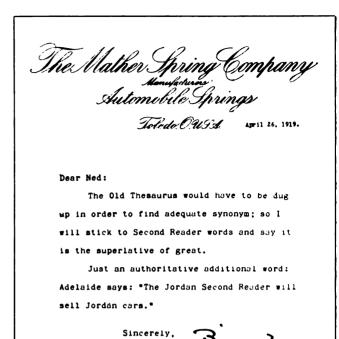
The sense of hearing must never be offended. Conspicuous noises have lost many a sale. Russell Begg adopted a rattle-proof spring shackle to eliminate the noise bugaboo, so common in many cars.

The secret of Jordan service is balance. That is what keeps the Jordan out of the repair shop. Russell Begg, when he designed the Jordan, laid out the best-balanced chassis in America. The Jordan goes forward — not sideways. Think it over!

So we labored long to produce a car that would please the owner who had gone through the kindergarten with his first car, known grade school experience with his second, or third, and was ready for the high school.

How the Name Suggested Itself

ONE night I came in with Begg from Uniontown — plastered with mud, but happy. We had been trying the new car on the toughest mountain in Pennsylvania. When in Uniontown, your state of mind is that of a fly climbing out of a milk pitcher. There are no level spots. You go up or you go down. We have never advertised Jordan performance. The owners do that. Our belief is that a car simply must perform well. Our advertising is



Edward S. Jordan. Cleveland, Ohio.

Let the old gentleman rest, Brownie, we don't need him

intended to induce people, first to inspect the car, and then ride in it. The performance is so pleasing that owners are inclined to exaggerate it. If we claimed a lot, they would be inclined to depreciate it.

My boy Jack, wanted to know how she took the hill — and what we would name it.

I jokingly told him the name would include the letter "S"— the most suggestive, striking, subtle, simple, smoothest letter in the alphabet. To a twelve-year old, that was interesting. So I took the dictionary and pointed out to him many interesting words, in which the letter "S" appears — sleep — slumber — swift — speed — sweetheart — siren — stars — sun — song and many more.

Just for fun, I told him I could write a poem of twelve lines in which the letter "S" would appear more often than any other. He grinned and said, "I bet you can't"—Here it is: The name "Silhouette" was thus suggested and adopted.

The Subtle Sound of "S"

Strikingly suggestive is the subtle sound of S
The beginning and the ending of the magic word Success
Symbol of the sunny south, sleep and starry skies
If we didn't have this letter, how could we advertise
In Silhouette and sunlight its syncopated swing
Inspires the copy writer to almost anything

Spirit of the seven seas, siren song of spring
Reveling o'er the sleeping roads, youth will have its fling
Swift as a speeding swallow, sinews of the stag
A little touch of genius, the boot and saddle bag
A strangely singing letter—but now we must confess
Our middle name ain't Samuel—it's just the letter S.

Think over some of the advertising successes of the past and you will recall some in which the letter "S" prominently appeared.

How easily Sapolio rolls off the tongue, or Sunny Jim

How We Have Fun In Our Business

SOME of the fellows seem to think we have a lot of fun in our business. We do because we tremendously enjoy it. In fact, it's the greatest business in the world.

Mitch Thorsen, publisher of the Cosmopolitan is one of these. When he read the Playboy advertising copy, he said he got an inspiration. So he and "Pit," one of the live wires in his organization got up a folder in which they printed "The Tale of the Playboy." It's a real poem. See if you don't think so.

Now About the Playboy

OW about the Playboy? Why, the truth is — if Kaiser Bill hadn't quit, the name would have been Doughboy.

Five family factors must be considered in building a motor car. Father thinks in terms of the pay-roll or economy. Mother thinks of



119 WEST FORTIETH STREET, NEW YORK

April 23, 1919.

Dear Ned:

The Playboy copy made a hit with me.

I told you at dinner the other night that I would give you tangible evidence of the inspiration the Playboy gave me. I had in mind putting it up to Pitkin, who is one of my associates - and "The Tale of the Playboy" herewith is the result.

Pit had a lot of fun writing it, and I had a lot of fun reading it, and a lot more fun sending it on to you to read.

Faithfully yours.

J Mitchel Thorsen-H

Mirch

No question Mitch-it's a lot o ffun

The Tale of the Playboy

OU'VE heard, or maybe you haven't heard, but the secret is out, it seems, How Jordan has built his Playboy of glory and steel and dreams, Built for the joy of the building, and the joy of building true, A brawny thing, and a graceful thing, for the sweep o' the Avenue; There's a savor of links about it, of laughter and lilt and light,—
There's a hint of old loves and boxing gloves, and folly and faith and fight! It's a shame to call it a roadster — so full is its thoroughbred frame, Of boyhood and mirth and morning, and the cross of wild and tame. It's built for a man's man, certain! And it's built for the lass whose face Is brown with the sun when the day is done of revel and romp and race. And whether in cockpit swanky aft, or in leather comfort fore, You'll breathe more deep at the forward sweep, and the glorious thunder-roar As you loosen the jaws of the cut-out and hark to the voice of Thor.

-and how that tale will be read.

ONIGHT, in the quiet of home-time, in the land of your heart's desire,
As you lounge in your sleepy-hollow chair, and draw on the rare old brier —
With the folk of your heart about you, and — sh! — from the music-room
A rare old Gaelic melody finds its way thru the stately gloom,—
Perhaps you will know, as never before, the glory of love and life;
Perhaps you will know that, weal or woe, sorrow or joy or strife,
It's good to live and it's good to give and it's good to cram the days
With all of the joys of living, in all of the master ways
That man has wrought with toil and thought, from the sea and the earth and air —
Perhaps the tale of the Playboy will call to the boy in you
As a certain pond and a hook and line and a mongrel used to do!

Inspired by the Playboy and inscribed to E. S. JORDAN by J. MITCHEL THORSEN.

Written by "Pit" of Cosmopolitan "America's Greatest Magazine"







BAKER-FISK-HUGILL COMPANY DETROIT

JORDAN MOTOR CAR

DORT MOTOR CARS

736 WOODWARD AVENUE

ril 8th 1010

Jordan Motar Car Company, Cleveland, Ohio.

- Attention Mr. Reilly -

My dear Mr. Reilly:-

I feel that I must write you a letter telling you how much I appreciate, and how pleased I am, with the new silhouette Jordan motor car. It is the finest appearing and the best motor car that I have ever seen, and am certainly looking forward to a wonderful business when the time comes when we will be able to show this car to the purchasing public, because if they are impressed with it in the same manner that I was when I looked it over, you will be unable to supply the demand that there will be for this car.

Hoping that you may be able to ship us our allotment as rapidly as possible, I remain

Very truly yours,

BAKER PISK BUILL CO.

By My E Caker

A letter from Charles E. Baker, Detroit distributor for Jordan

her children's opportunity. Daughter thinks of her position in life and a happy marriage. Son thinks of travel, speed, pep, get-up-and-go. Then there is a pet in every family.

Two million wonderful girls have been waiting for two million wonderful boys. There will be a host of weddings in June. The boys who went across to work for democracy are entitled to a little play.

The Playboy is ready for delivery now.

The Mystery of the Silhouette

THE first inkling the public was given of the new models was in a mysterious insert in the trade papers. Some people think the public, or people outside the trade, do not read the motor trade papers. The result of this advertisement was striking. Of coure everyone in the trade made a guess. Many were sure they recognized the wording of Jordan copy. They did and it was intended they should.

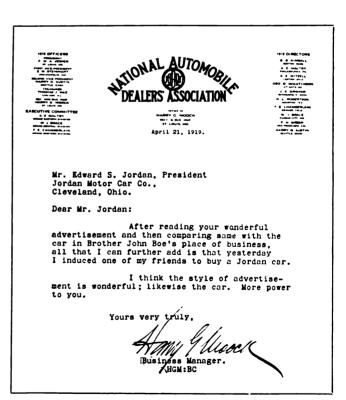
Others not familiar with the following phrase (a chassis of finished mechanical excellence) attributed the advertising to other manufacturers, and it is significant that many guessed the Silhouette to be a product above \$3,000 in price.

Jordan dealers were in the secret. They had the new cars hidden, ready for display on the day the announcement appeared in *The Satur*day Evening Post and Literary Digest.

Then the orders began to come.

It means little to give actual numbers.

Thirteen hundred orders were received in the first ten days and while Jordan production is



This is what Harry G. Moock, Business Manager of the N. A. D A. did when he read the Advertising

limited, they have been coming at the rate of about forty daily ever since.

Of course, many will be disappointed, but Jordan plans for increased production are moving forward rapidly.

Why People Swamped Us With Orders

EVERY day someone asks why people have been so strongly attracted to the Jordan car. Is there anything magic about it?

There is nothing magic about it. It is simply an honest car, that will stand up and give service to the owner over a long period of time, with little expense and worry to him.

But you say — there are other cars that will

do the same. The answer is — they cost much more than the Jordan.

That sounds like something you have heard before. You are not convinced.

Let us proceed by illustration.

The fastest selling car in the world is built by a man who for many years had no competition. Why? Because he first built a car for the other fellow. Other makers were building cars which they liked to ride in themselves.

The man who had grown tired of walking, riding on a bicycle, or crowding into a street car, bought this car, as soon as his savings warranted.

There are fifteen million people who can buy in this class.

Now, you will grant that man loves comfort and the satisfaction of his senses.

When he makes enough money he takes the next social step — he buys a larger, better car, costing a few hundred dollars more. That explains the big success of another manufacturer, who usually puts three strong points into his advertising — his good honest name — low gasoline consumption, and high tire mileage. The price of his product is not featured. People believe his product is right, and most intelligent people are suspicious of price merchandising. Therefore, he sells to thousands who might easily afford to pay more. Remem-

ber—his purpose is to honestly serve the public.

Seven million people can afford a car in his class.

Now, every man who has a family, knows that women and children like to entertain friends, and all human beings love reserve power. A certain car which first gratified this demand leads in the next class. So when a man is ready for the next social step, he buys a car in this class. Income statistics prove there is a market for one million cars in that field.

The three cars referred to are produced in tremendous quantities and are built to



The Mystery of the Jordan Silhouette



Dear Ned:

Just read the Jordan Silhouette Ad in the last Saturday Evening Post.

Made a bet with myself that no ordinary writer ever wrote that "full of the spirit of victory, 29 louvres stuff."

If he did, I want to pay the bet - so come across with the answer, wasn't it your own little fountain pen dipped in your own heart's blood?

Yours in admiration.

381 madernan up

J. T. H. Mitchell knows more about advertising than an eagle knows about aviation. He knows how he does it

serve a human need without attempting to completely satisfy all human demands.

The day arrives when the family income entitles its members to more of the good things of life. A hedge around the yard — a new coat of paint for the present house, or possibly a new home, distinctive in appearance, a new piano, Victrola, heating system, or possibly a college for the boy or girl.

When that day comes, that family chooses a car like the Jordan, rare in beauty, excellent in finish, distinguished by comfort, good taste, absence of conspicuous noises, and trade marked with a good name.

But — why doesn't every one in this class buy a car like the Jordan?

Because, hope springs eternal in the human breast. Boys and girls dream of magic. Sales experts know that some dealers do the same thing. They are always hoping that someone will produce a motor, an axle, or some feature that will revolutionize the industry. When someone announces that this has been done, they rush madly to buy, hoping that it has at last been accomplished.

The leading manufacturers in the industry have never taken advantage of this human weakness, because they are not dazzled by the idea of making money rapidly.

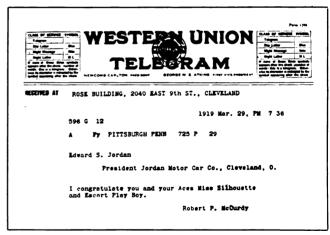
Many people confuse the idea of happiness with the idea of making money. The most envied manufacturers in this business have learned that happiness lies in serving others, not magically, but creditably.

Many people get the idea that if a man is making money he is a success. No man is a success until he does something of which his children may be proud and that something must be creditable, or he will be secretly unhappy.

There is nothing magic about a good motor car. Like a good man or a good woman, it has character. If it possesses good character, it will possess a good name and people will buy it without question.

Thus all the problems of production, sales and advertising, are solved. The manufacturer succeeds — the dealer and salesmen succeed — the public is served.

Everybody is happy — and that is Success.



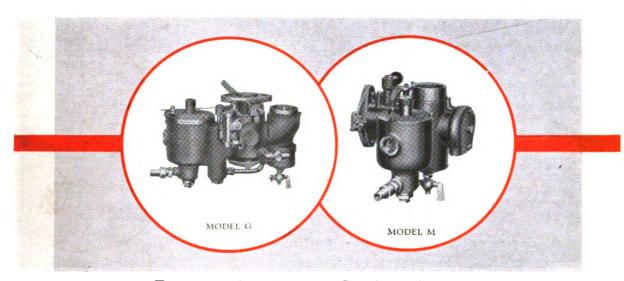
Robert P. McCurdy of Pittsburgh, Philadelphia and New York suggested the roadster as a spring member of the Jordan line

JORDAN MOTOR CAR COMPANY, CLEVELAND, OHIO

THE CONDAY & GROSS COMPANY, CLEVELAND

Volume LX Number 5 PUBLISHED WEEKLY AT 239 WEST 39th STREET NEW YORK, JULY 30, 1919

Fifteen cents a copy Three dollars a year



For more than 10 years Rayfield Carburetors have set the standard for quality and performance. This superiority is recognized by leading motor car engineers and by dealers and car owners throughout the country who have used Rayfields with complete satisfaction.

Dealers and service stations everywhere.



BENEKE ε KROPF MFG. CO. 21^{ST.} and ROCKWELL STREETS, CHICAGO, ILL.



Proved!!

7 Years' Performance on Thousands of Farms

In considering the remarkable performance of the Bates Steel Mule, please go beyond the blue print specifications. Contrast it with other tractors on this basis: Bates Steel Mule has arrived—is PROVED! It is backed by 35 years' engineering experience and a record of seven years' successful performance in the hands of owners, (not demonstrators), on thousands of farms, in all parts of the country, in all soils and for all kinds of work! Proved! Think what that means!

A Repeater That Makes Sales

And this explains why 80% of all Bates Steel Mules made are sold to farmers who have previously owned other tractors. It explains why Bates Steel Mule owners re-order. It explains why dealers everywhere are dropping other tractors to handle Bates Steel Mule exclusively, such for example, as the recent case of a big Illinois distributor of Overland Automobiles who dropped his distributorship for four tractors to handle Bates Steel Mule exclusively.

Production Tripled

It also explains why we have now tripled production to care for the heavily increased demands. We are now able to submit our unusual dealership proposition to the many dealers who we have heretofore been unable to supply. If you are

tired of "experiments" and want a proved tractor write for details of this

Year 'Round Seller

Bates Steel Mule not only plows, but discs, harrows, rolls and plants seed bed. For its pressure is but 3.7 pounds per square inch, (the lightest known.) Hence it does not pack soil Secures traction under all soil conditions, hence offers biggest market. And has greatest power per pound of weight of any tractor built.

Big Dealership Offer

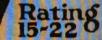
Send for details of the big advertising and dealer co-operation plans that are making fast sales, and attractive profits for Bates dealers—co-operation such as you've never before known. Write now.

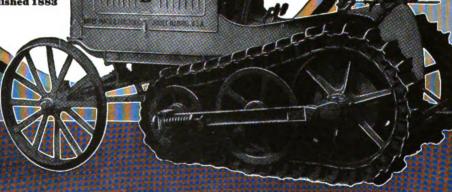
Bates Machine & Tractor Co.

762 Jackson St., Joliet, Illinois

Established 1883







Bates Steel Mule



239 West 89th St., New York City. 'Phone Bryant 8760 PUBLISHED EVERY WEDNESDAY BY

The Class Journal Co.

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"NORMA" **PRECISION** BALL BEARINGS



The cost of the failure of a bearing in a magneto or lighting generator is not simply the cost of the repair or replacement. To that—and properly chargeable to the bearing failure—must be added the value of the service lost from the car, truck, tractor or power boat, while repairs are being made.

Magneto and generator builders who feel their responsibility to builders and owners of cars, trucks, tractors and power boats using their apparatus, standardize on "NORMA" Bearings as a measure of service-insurance to their customers.

Be Sure—See That Your Electrical Apparatus "NORMA" Equipped.



THE NORMA COMPANY OF AMERICA

1790 BROADWAY

Ball, Roller, Thrust and Combination Bearings



\$26,500 in 1918
More in 1919

What are **You** Going to Do?

The following extract from a letter by J. A. Baugh, of Camper & Baugh, 1700 Webster Street, Alameda, California, tells its own story:

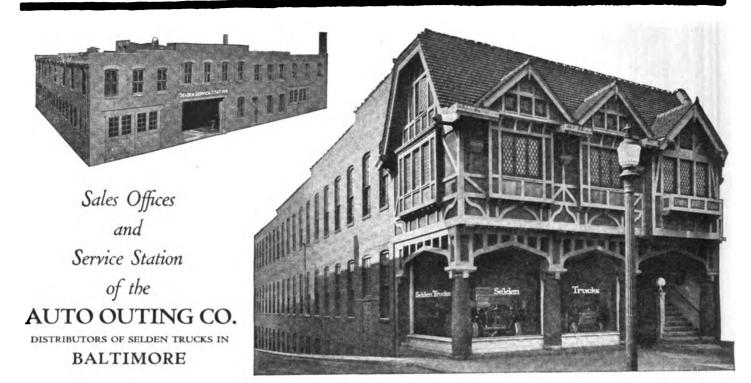
I have often intended to write and tell you how much we appreciate MOTOR WORLD. We have practically built our business from ideas and suggestions in it. Every number puts new pep into us. You certainly do have some peppy ideas. We read every word from the first to the last page.

We started on August 1, 1916, with a hundred dollar Akron Williams vulcanizing equipment. During the year 1918 we did \$26,500.00 worth of cash business. We now have our own retreading kettle curing 8 tires, molds to cure from $2\frac{1}{2}$ " to 5" sections, inside cookers, tire wrapping machine—in fact, a fully equipped vulcanizing plant, including our own steam plant with 10 horse steam boiler. We have a 72 volt motor generator (Gen. Elec.) for charging batteries; plenty of good rent batteries, and the agency for the Eveready storage battery.

We also have a large stock of new tires and a small stock of accessories and sell gas and oils.

We have two vulcanizers working for us, besides Camper, my half brother and partner, and myself. We also have one battery man. We are certainly prepared for big business and are getting it.

We are using your advertising ideas all the way through and I'm just writing this to let you know how well we have done with the help of MOTOR WORLD. Keep up the good work. Put in more accessories and vulcanizing ideas and battery hints. They are being used by thousands in the automobile accessory business.



Some of the largest and highest-rated distributors of motor trucks in the United States and foreign countries are SELDEN Dealers.

This fact alone is strong evidence of the value of the Selden Dealer Franchise.

To-day there are few localities in the United States where Selden Trucks are not represented by the highest types of dealers; but in these few places where we are not adequately represented, we desire representation that will bridge the gaps and make the Selden

Sales Organization the most complete and most highly efficient Motor Truck Sales Organization in America.

We shall be very glad to hear from dealers in territory where Selden Trucks are not at present being sold.



1877-1919

The first gasoline motor propelled road wagon was a SELDEN. The present types of SELDEN TRUCKS are the result of years of continuous experiment, observation and experience in manufacture since the day of their inception in 1877.

I, 11/2, 2, 31/2, 5 Ton WORM Drive Models

SELDEN TRUCK SALES COMPANY ROCHESTER, N. Y., U. S. A.

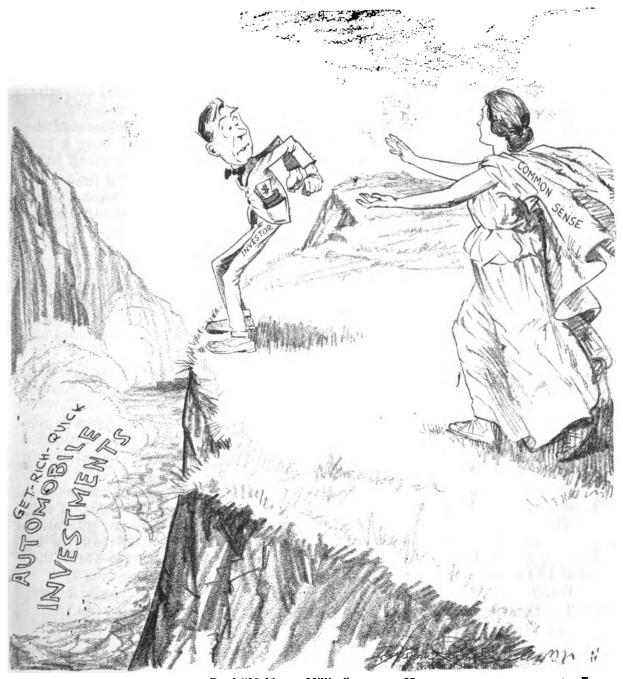
Selden Motor Trucks

Vol. LX

New York, U.S. A., Wednesday, July 30, 1919

No. 5

"-Before You Leap"



Read "Making a Million" on page 25

Let's Have—

NO MORE TIRE

1—Let's Cut It All Out

2—Do a Better Business

3—Sell Tires on Merit Only

S we go back to business let's go back RIGHT.

Let's do some things we never did before and quit doing some of the things we have done for years.

As a starter, let's cut out the guarantee nuisance on tires.

The guarantee has outlived its usefulness. It was useful at a time when tires, cars and everything allied was new and the purchaser wanted some assurance that he wouldn't get stung. Under those conditions the better makers instituted the tire guarantee.

And just because the thing was started it is being kept up.

But—ask the first man you meet on the street what he thinks of tire guarantees and see what he says. Either he doesn't know much of anything about it or else he probably is unqualifiedly against it.

There is no more sense in a reputable tire company guaranteeing a tire for 4000 miles than there is in a shoe maker guaranteeing a pair of shoes for the same distance.

A tire either is good or it isn't good. If it isn't good it can't get by at all, and if it is good it doesn't need any guarantee. A guarantee can't make a tire.

A good tire, made by a good company, and sold by a good dealer will give the buyer far more miles than the guarantee covers—if the user has any sense on the tire question. The average man will get nearer 10,000 than he will 3000.

BUT—along comes some wild, reckless driver, whose idea of motoring is to see how near he can come to scaring the rest of the world to death. Taken collectively, he can ruin tires faster than the tire companies can guarantee them. He skids around corners, slaps on the brakes to make up for his reckless speed, drives carelessly over bumps and rough roads—and then DEMANDS an adjustment because his tires don't last.

WHO PAYS?

The tire company? No.

The dealer? Not directly.

GUARANTEES

Who then? The man who is careful of his tires. He pays for the guarantee that is given to the reckless driver. To protect itself against the mad motorist the tire company has to add to the price of the careful user's tire.

And when it comes to a kick the hardest kicker gets the best adjustment.

How much better it would be if tires were sold as other good merchandise is sold.

You would eliminate the grief of adjustments. You would avoid the chance of losing friends and customers. If YOU sold a GOOD tire, and if people bought of you because you have a GOOD REPUTATION you would develop a sweetly running business—and make money at it.

When you go to a hat store you buy a hat and never think about a guarantee. If anything woefully wrong develops you go back and—if you bought of a good dealer—you get satisfaction. But you never worry over how long the hat will wear. You WEAR IT OUT AND BUY ANOTHER.

You buy gloves—as GOOD GLOVES. If they rip too early and it isn't too much inconvenience you go back and get them sewed up. If you kick hard enough a good dealer will give you a new pair, yet you have a sneaking idea you are unreasonable when you DEMAND A NEW PAIR.

You buy shoes—AND FORGET HOW LONG THEY WEAR so long as they don't show defects and go to pieces too early. You buy them because you have confidence in the shoe and the dealer.

You buy clothes of dealers in whom you have confidence. If the suit isn't satisfactory the tailor makes it satisfactory. But does he say anything about a guarantee? Or, do you ever think to ask for one?

When a shoe man, or a tailor, or a hat man, or any other man, begins to talk about "guarantees" you begin to wonder WHY HE HAS TO GUARANTEE HIS GOODS—and how much extra he charges for his "guarantee conversation."

One of the things badly needed to make the automotive business a real business, and put it on the plane where it belongs, is the elimination of this "guarantee stuff"—which amounts to nothing except trouble.

Guarantees mean nothing but trouble—and trouble costs dealers real money. The dealer who has sold a guaranteed tire has taken the first step in a career of worry. He is between the devil and the deep sea—the customer and the factory; if the customer kicks and the factory doesn't see fit to adjust the dealer is in a mess.

Let's cut it all out. Let's sell tires on their merits.

If serious troubles develop and it is obviously the fault of the tire, make good in some way.

Let's make tire selling a real business, with real goods sold in a real way.

ARE YOU FOR IT?

Could You Use a

TRAVELING ADVERTISER?

DURING the War, an English Dealer Kept His Doors Open by Sending His Advertising Manager on Tours Throughout His Territory. He Suggests That the Same Method Would Increase Business for American Dealers in the BACK-TO-BUSINESS Period. WHAT DO YOU THINK?

By J. R. F. SMITH, JR.

F you arose tomorrow morning to read that the Government had forbidden motorists the use of the roads; if the indiscriminate sale of gasoline should be prohibited and the price brought up to \$1.50 per gallon, and if the factory suddenly refused to manufacture or sell another car—as a dealer, what would you consider your chances of existence?

That is what the British dealers faced in 1915. Near the beginning of the year 1915, the first full year of the great war, Government demands for gasoline became so great and the supply so small that motorists were forbidden to use the roads, unless they could prove that their very existence depended on their motor cars. Consequently motoring for any purpose other than business was strictly prohibited. Furthermore, at this time, the population was passing through a peculiar yet inevitable period of desperate conservation. Money was withdrawn from the banks and literally "wrapped around revolver barrels and slept on all night," only being spared for foodstuffs and the necessities of life.

This unfortunate state of affairs was proving immensely detrimental to the business of J. W. Smith & Co., distributers for the French Peugeot car for the south of England, who handled as well also a full line of automotive equipment.

At the time of this slump, the Boss had on his hands about 36 cars—two \$5,000 cars, four \$4,000 cars, ten

\$3,000 and the balance of Babies, the smallest orthodox car on earth. He was carrying as well a full stock of spare parts, together with a full line of accessories.

Sell All the Territory

The first week of actual inaction was somewhat humorous. The large staff of service men could only loll about, waiting for something to come in, while the office and sales staff was equally slack. In fact, the only members of the staff who could find anything to do were the general manager, who was reorganizing the business to meet the new conditions, and the advertising manager, who had started all manner of propaganda and publicity to keep the sales and service departments in operation.

By the end of the month, the situation was beginning to look serious. Some nearby dealers had had their doors closed several weeks, and ours were beginning to run rather easily on their hinges, as, virtually speaking, we had had no business since the operating date of the Prohibition of Pleasure Motoring bill. Well, the Boss started the usual methods, now most familiar in America. He dropped slow-moving accessories, practised the most rigid economy in both service and sales departments and reduced the staff, dropping any apparently unnecessary labor. The advertising manager was working 100 per cent but all to no account. Prospects did come, it is admitted, and made small

and sometimes large purchases, but the returns were not enough to keep up the business. We were, in fact, within one month of closed doors, when a particularly brilliant idea "waltzed up and cracked the Boss across the head." He reasoned like this:

"By drawing a salary of \$5,000 a year and sitting at his desk in this establishment, my advertising manager is bringing me a definite, though restricted, amount of business for both my sales and service departments. By reason of his methods, that business is confined to this locality and is not enough to keep my doors open. I cannot drop his salary, that would be 'jumping out of the frying-pan into the fire'; but if I could get him to bring me, from the other communities covered by my contract, the same amount of sales that he is drawing from this locality, I could not only stay in business, but also make a handsome profit and, when the war is over, be able to tell my manufacturer and my banker that I stood the war years of forbidden motoring without going out of business."

A New Selling Plan

Well, to cut a long story short, the next week saw the advertising manager, the general manager, and the Boss poring over business-getting circulars, facsimile letters, local newspaper ads, pretty advertising postcards, and, in fact, every conceivable form of publicity that could be de-

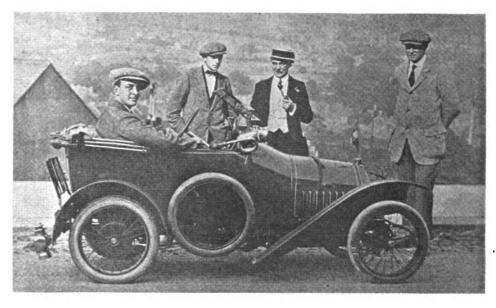
vised. When these had been prepared, large scale maps of the south of England were studied and a definite route was planned, with stated sojourns in each important community. A sports model Baby Peugeot was drawn from the stock and put into running trim. One fine morning, a week later, the idle members of J. W. Smith & Co. could be seen standing outside the show windows cheering the advertising manager, who was at the wheel, and his assistant (the writer), who was beside him, as they drove away from the premises on an entirely new business errand—an errand that, to the best of my knowledge, we were the first to adopt in the automobile industry in any country in the world; not even the great and almighty American industry beat us to this.

Use the Newsboys

We covered the ground from Deal to Penzance. The methods adopted are too well known in America to need much comment, but the results were positively magical. Suffice to say that in each town we put up at a hotel, unfolded our card table, produced the typewriter, and, with the aid of the local directory, conducted a direct mail advertising campaign, including our catalogs and price lists. Attractive circulars were given to hotel managers, who put them on the inquiry counters. Small ads were placed in the local newspapers and in the theatre and "movie" programs. All our local dealers were informed of our new plan and were given a copy of the addresses used in the direct mail so that they could use a follow-up. (They seldom did, but it made no difference, the orders came in just the same.)

Our best local publicity idea was when I captured a dirty little newsboy selling evening papers at a street corner. I pressed a shilling into his grubby paw and told him to give away one of our most attractive circulars with each paper he sold. Ten minutes afterward, I walked by and saw him faithfully distributing them, terribly conscious of his own business importance. That led to the birth of a better idea. I wrote the Boss about it, and, when I returned, I found that a large number of newsboys-all very small ones, they are the more faithful-were being paid regular salaries doing little bits of incidental publicity. This was eventually one of the most successful forms of advertising we used. There are thousands of things these youngsters can do and will do faithfully because a regular salary, no matter how small, will inspire them with awe and make them feel important.

Thus we moved from one community to another with the same policy



Here is the Baby Peugeot that toured from Deal to Penzance and kept the salesroom of J. R. Smith open throughout the war, despite the long years of forbidden
touring. Smith—who is called the Boss in this story—stands in front of the little
car. The plan outlined has possibilities in America, perhaps even greater than in
England, where it worked out so well. The wide-awake retailer, at least, will consider
it well before turning it down as a business yetter-

in each town. It took us from March, 1915, to September to get from Deal, Kent, to Taunton, Cornwall. When we got home, the Boss told us that, if we had never let him know where we were, he could have told because, wherever we were, there was the demand (not a large one, of course, with motoring forbidden, but still it existed and kept our heads above water).

Opportunity Large Here

When I arrived in America, one of the first things that struck me was what a marvelous opportunity there is for such a man here. In spite of the huge automotive industry, the gigantic area and the "far apartness," America must hold millions of potential customers. Personally, I can imagine nothing more prolific for the manufacturers', jobbers' and dealers' sales than to send an advertising man around the country on a car.

A manufacturer would find it an excellent plan to employ an additional advertising man, paying him a good salary (you will never get a man to do it if you are "tight") and ordering him to cover the Lincoln or the Dixie Highway, or any of this country's marvelous road systems which connect up communities most likely to be potential in sales. He would travel up and down that highway, conducting in each community, as he comes to it, just such an advertising campaign as he would conduct in the luxury of his own offices, surrounded by his female bevy of typists and stenographers.

A Plan for American Use

Knowing this job as I do, having had plenty of experience with it, I do

not agree with the idea of sending men on long cross country work, no matter how much you pay them, because the ground, no matter how many times covered, always holds out something new if visited at infrequent intervals. The best, in fact the ideal, policy would be to operate several of these men, giving each three or four States to cover. This naturally would entail greater cost in wages and expenses, yet experience shows that it is worth it a thousand times. With smaller ground to cover, the traveling advertiser visits each town more frequently, knows the people, the roads, and the dealers. He has a far better grip of the territory than he would if he had to cover vast distances, only visiting each community at infrequent inter-

Must Have Experienced Men

The traveling advertiser must be an experienced publicity man or else his work will fall short of the mark. He must be given excellent pay, for he does more work than his coddled brethren at the home office. He must be given ample living expenses—cheap environment means cheap work—and, last but not least, he must have a good car, as all his brains must be concentrated on his work and not be handicapped by a car that is continually "hung up" on the road.

Well! who's goin' to try it first on this side of the "herring pond"?

Bossert Opens Cleveland Office

Utica, N. Y., July 21—The Bossert Corp. has opened an office in Cleveland at No. 611 Citizens Building, in charge of W. W. Vesy, western sales manager.

Digitized by GOGle

The Truck Salesman

Must Sell Transportation

HE SHOULD

- 1. Plan Deliveries.
- 2. Meet Industrial Needs.
- 3. Demonstrate Truck Types.
- 4. Specialize on Some Line of Business.
- 5. Keep Down Service Costs.

SERVICE IS THE KEYNOTE

The customer does not buy a mechanical contrivance, but a Delivery System—sell him that as a

Transportation Specialist

S the field for selling motor trucks becomes more and more crowded, with competition keener, the difficulties of finding live-wire salesmen grows more and more acute for the dealer or distributer who would do other than make a bare living. But the problem becomes simpler if the dealer and the salesman, as well, will merely stick to a single idea. It is that trucks are not sold, in the greatest number of instances, because they are mechanical contrivances, like passenger cars, but because they are transportation units offering quicker, more economical and better all-around deliveries.

The best truck salesmen to-day are transportation experts. They sell, not a motor or a design of chassis, but a delivery wagon. And it is in this that they must specialize.

It is possible to ask several questions, applicable to all phases of truck salesmanship. Every dealer, every salesman and every person who is anxious to join the increasing ranks of the truck field should ask these five questions:

HOW MANY truck salesmen CAN

- 1. Convincingly plan a BETTER transportation system for an industry that should be motorized?
- 2. Do more than glibly repeat factory literature, but meet individual industrial needs as they arise from day to day?
- 3. Demonstrate and convince a prospect of the size of truck and the style of body that will best suit that prospect's PARTICULAR BUSINESS?
- 4. Specialize upon the transportation systems of any one line or groups of business?
- 5. Teach a user how he can maintain his truck or his fleet with the maximum economy and the minimum loss of operating time?

Each one of those questions indicates a separate procedure or thought that the successful salesman cannot overlook. They illustrate to-day the need for real and better merchandising in the truck field. And, in addition, they show that the salesman to-day sells only service.

Truck salesmanship differs therein from the sale of passenger cars. The public knows its need for passenger cars and has seen that need for so long that it buys because of engine features, the design of a body, or the features of comfort and easy riding so bound up in better engineering. The customer of a passenger car dealer is "motor wise"; he already has been sold upon the idea of using and enjoying a motor car.

Studies the Detailed Problem

The customer of a truck concern rarely is "truck wise" and truck educated. But most generally he is "transportation wise." He always has had to move and deliver the goods he sells or makes. So, sell him transportation service and let the rest go hang.

One New York dealer recently confessed that his staff contained only one really good salesman. Six others, he said, were more than making a decent living, but the other ten "weren't turning in enough sales to pay their salaries." The star averaged about one truck a week.

"I don't believe he has ever called upon a prospect without having spent at least one and probably two days beforehand studying in detail the transportation problems of the particular business of his prospect," the boss said. "Sometimes he accompanies the wagons or trucks belonging to the prospect, sometimes he gets acquainted with drivers and workmen and learns the difficulties of the business

and sometimes he merely studies the particular needs of that individual line of business."

The transportation needs of one industry is different from another. A soap manufacturer does not deliver his product in the same manner as a groceryman and the methods of the two are widely removed from, for instance, those of the haulage company that removes furnace ash. No two are similar—they vary in such fundamentals as lengths of trips, methods of loading and unloading, number and frequency of stops, waste time, routes and any number of other things. Conditions are different in every city. John Smith in Philadelphia may handle the same product and in the same quantities as Bill Jones in Kansas City, but their transportation needs differ as widely as their territories. Each business in each city or district presents a problem that must be met on its individual needs and the truck salesman MUST HAVE THE KNOWLEDGE to solve the difficulty as it arises in his own community.

Seeks the Business Expert

A pointer indicating the stress that must be put upon the differences of differing industries is the experience of one of the larger manufacturers who is trying to separate his sales plan into that of individual businesses and not into regional districts. This company has learned that there are a certain number of industries in the United States that fall naturally into a certain number of groups. The sales organization now is being shifted to conform with these groups, each division being headed by and containing men with expert and special knowledge of the industries making up any particular group.

Have you ever thought of group-

ing your salesmen according to their business experiences and according to their knowledge of different industries? In other words, have you had specialists?

An Eastern dealer remarked not long ago that he did not know how his salesmen had been engaged before he employed them. He had seven, he said, but was not certain whether they had been grocery salesmen, laundry agents, mechanics, or what.

"If a man looks good to me and I need him, I put him on," he said. "He must be intelligent, quick, willing to work and ready to learn. Those are the characteristics I seek in my men. I don't insist that they know anything about motors or technical matters or that they have previously been in the automobile industry. We can teach them that."

And on the face of it the dealer was right. But suppose one of his men had been employed by a paper box concern or that another had lived many years upon a farm. Who would be the man to send to a prospect in the box industry and which would be the one to go after sales in the rural district? The man who knew the special needs and could talk as an expert of the particular needs of that business or section? Which would probably present the most convincing plans and sales arguments?

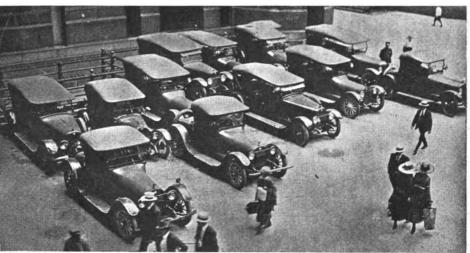
Salesmen Must Sell Service

Another dealer was asked how he would tell a prospect the size of the truck and the style of the body a prospect should purchase.

"I would find out the volume of his business," was the reply. "If his business had been large, I would advise him to buy one of our heavier models; if not, he should purchase a smaller size."

Good again, at first glance. But the answer contained little to show that the decision depended upon a particularized knowledge of a particular industry. Nothing was said about the sort of packages that would be hauled, the kinds of trips, the peculiar needs of service, the lengths of stops or the problems of maintenance and repair. Only a specialist could answer the question in a manner that would mean the best of service and the best of maintenance for the fleet owner.

Few salesmen to-day have actually loaded a delivery conveyance and actually witnessed or aided in the transportation of merchandise from factory to store or store to consumer's home. Nevertheless, these men are attempting to sell transportation, yet knowing little or nothing about the actualities of that work. Do you believe such



C Leayer Proto Bervice

The dozen cars shown above were stolen and then recovered by the police of Philadelphia. But their owners have not yet identified them and so they are parked outside of police headquarters in the Pennsylvania city awaiting the time when they can be turned over to those to whom they belong. Such a picture is an argument for saner and better registration laws

men could really convince the wary, transportationwise business man that he can cut his haulage costs by doing as the salesman urges? Such a salesman rarely would be able to make an actual and clear-cut analysis of operating costs and it is doubtful if he could lay out a plan that would challenge more than a polite but bored interest. Recently a certain company placed its truck order with the man, one of several competitors, who had worked out the details of a new loading platform from which the company's products could be handled into the vehicles more quickly and, consequently, with less cost. The sale did not devolve upon the merits of the truck itself; there were several others just as good. But it did go to the salesman who knew transportation.

Delivery means service—the truck that can haul the greatest amount of goods at the smallest cost of operations and maintenance. And that is what the salesman must sell. The market holds a number of good trucks to-day and the shrewd transportation-wise buyer can hardly go wrong, from the mechanical standpoint. Any one of a dozen makes might be suitable and might fit his business. But he will buy only one of them and it is up to the brains, intelligence and knowledge of the salesman to force the prospect's name upon a contract.

May Cut Maintenance Costs

How may this be done? The salesman must go after the business from the point of truck delivery service. He must do more than show that his truck can pull a certain grade or that it will stand a load of such and such capacity. It must be sold with an eye for tomorrow and the day after that as well

as for to-day. The salesman may plan his transportation service for the actual haulage, methods of loading, unloading, kind of trips and drivers. Then let him go further—let him take up the problem of maintenance and repair.

He must know his business so thoroughly that he can teach and show his customer how his truck or his fleet may best be maintained and kept in operation. Some trucks have little shop or idle time and are kept at work with the minimum of loss. Such trucks mean repeat orders, mean new customers and more money in the pockets of the dealer and salesman.

Time for the Specialist

But, if the salesman has not done his work properly when the car is sold, idle time will mount and maintenance costs will grow higher and higher. Few buyers know truck operation and maintenance and must depend upon the man who sold them the truck to teach them how to keep it in operation. The man who is a specialist knows these things and knows how properly to present them. He spends time giving the customer his knowledge and makes money from it in the future.

Many trucks are sold to-day without the application of any of the
features of scientific merchandising
enumerated here. Some buyers sell
themselves. But not the great majority; most of them literally must be
coerced into fixing their names to the
sales blank. Then, it is the time for
the specialist, the man who makes it
his business to furnish BETTER
TRANSPORTATION. That is the
slogan for the successful salesman of
to-day.

Tractor Bill

ппп

WENT TO WICHITA

And Learned That the Dealer Must Make His Own Demonstrations and Convince the Farmer by Letting Him Run the Tractor Himself—Several Machines Are Needed to Complete a Dealer's Line

By TRACTOR BILL

EP, I've been away for a few days. No, I haven't been to a tractor demonstration; though, that's what they said it was going to be. What was it, then? Just a tractor vaudeville stunt with tractors for actors, and some of them mighty poor actors at that, take it from me.

Why, the things they pulled off out Wichita way proved just about as much about tractors as looking at a silk shirt in a show case proves that it won't shrink when the Chink laundry gets a whack at it. I'm out about a century of iron men and all I'm in is a sun burned neck and a scrambled recollection of a lot of tractors plowing up a piece of ground about as big as a postage stamp.

You know, says I to myself, when I heard that all the tractors in creation would be prancing around Kansas, I'll just get me a Palm Beach suit, a big straw hat and a keg of near beer and be on the job. I'll hike out to Carrie Nation land and give 'em the once over. Maybe I've been a bum picker in hooking up with the machine I've been trying to cell and if I can see 'em all side by each I'll be able to sort out the tractor that'll knock 'em all dead.

Well, do I know any more about it now, after irrigating some four sections of Kansas farm land with sweat? Yes, I do-not. Of course, I'm kind of glad I went, once, but once will be about enough for me. And I guess that's about what the farmers out there thought, too, for darned few showed up. I'd heard about the great big crowds which came to the national demonstrations and I looked to see most of the Kansas prohibitionists there. But about 20,000 was the biggest crowd Wichita got on any one day and most of them worked a whole lot harder collecting souvenirs than they did following the tractors around.

As a show, it was some show, believe you me, but it beats me why anybody wants to hold a tractor show out in the open for, under a sun that's got the habit of shining on all four sides of you at once, when by waiting a little it might be held some place where one could be comfortable. You can take it from me that looking at tractors under a tent that strains everything out of a sunbeam but the heat is no joke. The joke was at the demonstration field where fifty or sixty tractors were kicking up clouds of alkali dust and thinking they were doing something when they pulled a



gang plow. Tractors are like a lot of men—they stir up a heap of dirt and put up a big bluff at doing something, but they get nowhere.

Why, who in thunder cares anything about seeing a tractor pull a plow? Every Tom, Dick and Harry in the country knows a tractor will pull a plow. If it won't, then it's no farm tractor. And going out to see a bunch of them turn over a little dirt is my notion of nothing to do.

What I wanted to know was whether those machines were running on prune juice or gasoline and how much of it they used in plowing an acre. I wanted to know whether the Jack Rabbit or the Rumbler has the most pull at the draw bar, even though both are rated the same in the catalog. wanted to know whether the Uncle Bill and the U. P. C. had power enough on the belt to run an ensilage cutter or whether the farmer would better put them on the back porch and let them run the sewing machine. I was just darned fool enough to think that, if I hiked out to Wichita, I'd get my money back by learning enough to tell my customers some real facts instead of giving them the stuff printed in the catalog.

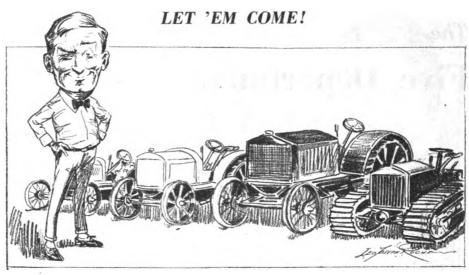
The Lid on Information

Did I find out any of these things? I did not. Somebody said, "Sh, sh," every time anybody wanted to show what his tractor really would do and if he tried to pull a stunt that would give some idea of what the tractor was good for, the committee would hit him over the bean and tell him to cut it out or he would be tossed over the fence on his ear. You can take it from me, the job of putting the lid on real information out a Wichita had any recent job of military censorship skinned forty ways from Sunday.

So, while I put cold cream on my blistered nose and think about what I didn't find out out at Wichita, I keep wondering what in time these fake demonstrations are for, anyway.

Do you know what I am going to do? I'm going to forget all about the other fellow and what he might be able to do to me and I'm going to quit worrying for fear I've bunkoed myself in picking out the machine I'm selling. When I've spotted a prospect I'm going to pull little old Mr. Tractor out to his farm and I'm going to give him a private demonstration of what that machine will do. And I'm going to let that farmer convince HIMSELF by running it HIMSELF.

Say, did you ever notice the way they fuss around a race horse before he goes out on the track? The way they monkey over these demonstration



"I'm going to have a line of tractors to meet the assorted kinds of conditions"

tractors makes me think of that. After a horse gets started, he goes so fast the hostlers can't keep up with him, but a tractor can't. So these tractor hostlers run along side, tinker with the carbureter, adjust the plows, kick trash out of the way and do everything they can to make the trick easy for the machine. Say, they make me weary. Just get this from me—they are queering their own game.

The farmer plays a lone hand. He hasn't got a bunch of nurses to chase along with his tractor while he lolls back in his seat and steers with both hands. Not on your tintype he hasn't. He's got to get that work done on his own. He's got to handle tractor and plow or any other implement all by his lonesome and he wants a tractor that will do its part of the work without being coddled and coaxed. If the farmer is wise, and you can bet your last dollar he is wise in most cases, he doesn't miss any of this monkey business and flamdoodle. The farmer goes into the field with just two hands and two feet and these must do all the What he wants is a tractor that will help out, not a machine that has to be fussed with all the time. Don't you ever get it into your dome that the farmer isn't hep-he's a wise old bird these days and nothing much gets by him.

Let the Farmer Run It

That's why I'm going to let Mr. Farmer play all he wants to with my demonstration machine. I want him to convince himself that he will be able to do his work himself, by himself, if only he has one of my tractors to ride on and I don't have to send him to Wichita to prove it.

You know, out at Wichita, they had a meeting of a bunch they call the S. A. E., whatever that is. All I know is what a fellow told me, it's a bunch of

high brows. Somebody told me once a high brow was a man educated above his intelligence, and so I didn't go to the meeting because I didn't think I was in the S. A. E. class. But at this meeting there was one guy who seemed to have kept some of his intelligence because he said that the tractor problem is a local problem and that it would be solved by the gink who gets hep to local conditions and sells the tractor that will make good under those conditions.

Wants a Line of Tractors

Say, believe you me, that struck me as good dope. It's the best thing I brought back from Wichita. Maybe, too, that one hunch will repay me for the hundred simoleons I blew in and for the blister on the back of my neck. Know what I'm going to do? Listen:

I'm going to have a line of tractors. I'm not going to sell every man in my territory just one kind of tractor. Not on your life. I'm going to have a 3-plow machine with lots of power on the belt and a smaller 2-plow machine with less power on the belt. Maybe, I'll get some kind of crawler for those parts of my territory where a wheel tractor is not always the thing and you can bet that by next year I'll have some sort of motor cultivator.

I've learned one thing and I've learned it good and plenty—it's punk policy to sell a farmer a tractor just because you happen to have one for sale, without knowing in advance that it won't be more useless to him than a one-seated baby cab for twins. Now I'm not going to let anybody tie any such break as that to me. I'm going to study the needs of every man I try to sell before I get after him and I'm going to know just what sort of tractor he ought to have and I'm going to have that particular machine ready to demonstrate to him.

The

Five Departments Of A Big Business

Service.
 Financial.
 Tractor Sales.
 Track and Car Sales.
 Automotive Equipment.

Played an important part in the success of Thomas J. Northway, the veteran automotive dealer of Rochester, N. Y. In fact, without the system built up, Northway believes that he would have been unable to handle successfully the varied lines of his business. The plan that has been developed is the result of a gradual growth of his establishment, which had its genesis in the bicycle shop started by Northway so many years ago that he hesitates to recall the exact time.

The Thomas J. Northway organization differs from most such concerns in that it is headed by an individual rather than by a company or corporation.

Northway was for twelve years the Ford distributer for Rochester and vicinity and, after the Ford company opened its own branch, took on the Reo line of cars and trucks for Central New York. He also is the Rochester distributer for the Fordson tractor and the Duplex four-wheel drive truck. Also, Northway is a large jobber of automobile equipment and parts and is the factory representative for J. & D. tires.

The development of the departmentization idea has, of course, resulted in dividing the Northway organization into a number of separate units, with each department head being held directly responsible to Northway or his general manager, Charles W. Frisbie. The element of personal supervision and advice, without irritating interference, is one of the contributing factors to the success of the Northway organization. Northway makes a daily practice of going through every part of the organization. "From attic to coal bin," is the way he puts it. This supplies the personal touch lacking in so many otherwise well-developed organizations.

There are five major departments to the Northway organization, and these have in some instances been sub-divided several times, so highly has the departmentization idea been carried out in the business. These are the financial department, the service department, the truck and car sales department, the tractor sales department, and the accessory department.

At the head of the organization, of course, stands Northway, while Frisbie, the general manager, might properly be termed the nerve center of the organization. Between these two, all credits are arranged.

The truck and car sales department is handled by the sales manager, N. H. Candler, and at this time nine men are looking after the selling. Salesmen report daily calls, file prospects, and each has one day a week on the sales floor. There is a weekly sales meeting at which all matters of common interest are brought up and discussed from every angle.

The used car department is a sub-division of this department, although under a separate manager. In this department also is an efficiency manager, C. L. Darling, who might well be described as a "pinch hitter" or "general utility man," since his duties are many.

The tractor sales department is under the supervision of E. Gordon Lee, while the tractor service department, a subdivision, is handled by Miss Emilie Voss. Northway has about one hundred subdealers scattered throughout the State, who both sell tractors and give service and, in addition to this force, five road men are constantly covering the territory from the home office. About 2,500 Fordson tractors have been placed in New York State since last July and the demand is still increasing rapidly. tractor service department prides itself on rendering twenty-four-hour service in any part of New York State.

The financial department consists of ten employees, under the supervision of Frank Mattern and William Meadowcroft. Here all office details are handled, including records of sales, prices, discounts, bills of lading, etc.

The accessory department is handled by George L. Clarke, with the aid of fourteen assistants. Five road men are constantly covering the territory between Buffalo and Syracuse, each one being supplied with an automobile. A large wholesale trade is handled from this department as well as a wholesale and retail business. The shipping and receiving department is supervised by William Burke, but is under the general jurisdiction of the accessory department. All merchandise, with the exception of cars, trucks, and tractors is handled by this department, which employs four people.

The service department, under the supervision of L. D. Robinson, is one of the most highly developed departments of the Northway organization. Ten mechanics and helpers are employed in the garage, which is under the direct supervision of Robinson, who personally supervises every car that is brought in for repairs, minor adjustments and painting, besides maintaining a general supervision of the building, fire equipment, elevators, and three lines of water connection. The main sub-division of this department, the repair department, is in charge of Walter Hoselton, who, with the assistance of two sub-foremen and thirty to thirty-five mechanics, handles all the repair work outside of minor adjustments. This department occupies one floor of the building, or about 15,000 square feet. Other important divisions of the service department are the painting department, and the assembling department. The latter handles the loading and unloading of all cars, trucks, and tractors, and the wash rack.

Another small department is the machine shop, under the supervision of George Gregory. Perhaps one of the most impressive things about the entire organization is the good fellowship that exists, for Northway is never too busy for a pleasant word and a smile and has created a spirit of co-operation that is rarely found in an organization of this

Horse Vehicles Fewer in Chicago

CHICAGO, July 26—Figures furnished by City Collector Fosberg, of Chicago, to the Trailer Manufacturers Assn. of America, from the records of licenses issued for vehicles under the wheel tax law in that city, show that during the last four fiscal years ended April 30, 1919, the number of horse-drawn vehicles licensed decreased from 49,582 to 32,489, or 34½ per cent, while the automobile and motor trucks licenses increased from 43,129 to 77,332, or 77% per cent in the same period.

Have you made a truck census of the business of your city and district? Can you tell what industries have not yet been properly motorized and do you know which trades to concentrate upon at each season?

Many dealers have increased their sales greatly after such a survey. It shows WHERE, WHEN, WHY and HOW to sell.

5 Things Your Boss Looks At In You

1-Your organization spirit

CORCON RESIDENCE DE COMPANION D

- 2—Your get-results habit
- 3-Your ability to originate
- 4—Your accuracy
- 5—Your atmosphere

By RAY W. SHERMAN

ET'S eat together," said young Georgie Roper, "on me."
"It's all right by me," assented Reilly.

"You know," Roper added, "you still owe me a couple of points on what you were going to tell me about the five things the boss looks at in his organization."

"Oh, yes—sure enough," said Reilly.
And so they went down to the Callawassa Grill and ate bread and milk and apple pie, and when it was all over—and the Sennett dealer had eaten even the last crumb of pie crust, Roper said: "Well?"

"Five things—" and then, just as evidence that he hadn't neglected to give thought to the matter, Reilly took a look at his little note book.

"You've got two—organization spirit and the get-results habit. Now, probably the next most important thing is a man's ability to originate—his initiative—his ability to do things without having somebody walking around behind him all the time to see that he gets things done.

"You see, it's like this," Reilly continued, and the young salesman listened intently, "there are two kinds of work—supervising and carrying out orders and plans. If every organization were made up of people who were perfect in every respect there would be need for only a little supervision. All the supervising that would be needed would be that required to keep the different phases of the work in harmony and to keep records and check results.

"But because people are only human and don't always think of things in just this way there has to be a long string of supervisors in every organization of any size. It will always be so. Human nature will never change in this respect, and because it will always be so there is a wonderful chance for every man who sees things in the right light and

gets out of the 'excessive - supervision' class.

"For example, let's

put it this way: Supposing there are needed ten men to do a certain line of work in a certain department. If they all get one hundred dollars a month that's a thousand dollars a month for the work. If they were all A-1 capable men they would need only the supervision of a clerk who would keep the records and divide the work as division became necessary. The clerk would draw less than the men—maybe fifteen or twenty dollars.

Not All Are Top-notchers

"But—and here's the hitch—not all of the men are real top-notchers. Some of them will take a job in hand and never will come through one hundred per cent of it. If it's a question of following up a group of prospects, the man may neglect some of them. If his time is too limited, he may let the matter slide and not ask for help in his work. Or, he may know his failure comes through his own slackness. Whatever the cause, he has to be supervised. There has to be some one to follow him up and see that the work gets done.

"And here's the second step: Because the man has to be supervised he doesn't prove himself worthy of the maximum compensation for the job. Part of his compensation has to be taken FROM HIM and GIVEN TO the supervisor. The man has robbed himself of part of the salary he ought to be getting. He admits—but doesn't always realize it—that he is of such caliber that he must pay some other man to help him to do his work.

"That's why there are good jobs as managers and directors in this and every other business. Owners of businesses realize that they must hire capable men to get things done, so they pay good money to men who will get the results for them. And don't forget this, Roper: There is more money to be made in being a capable worker, a capable salesman, than there is in being sales manager, especially in MY organization. Any salesman in my place can make all he can make—on commission—according to his ability to follow through.

"Now, I described this a few minutes ago as the ability to originate, as initiative, and that's what it is, because it you can do the one thing you are pretty sure to do the other. It all simmers down to using your head, to your ability to THINK.

"You, for example, may know thoroughly the result that the company wants you to get out of your job and you also ought to have sense enough to know that that result is the thing the company is anxious to pay for. Therefore, it's up to you to originate a way to get that result. You've got to learn to THINK. If you wait for somebody else to do your thinking for you you'll have to sacrifice part of your own reward and it will go to the man who thinks for you.

"If you find you have some hard prospects, the thing for you to do is to THINK OUT a way to get them. This may require a consultation with the sales manager, or with some good salesman, or may involve some new sales idea which you will have to work out yourself.

"No matter what you do you can use your head to help yourself. In other words, if you use your head, and originate, and have initiative, some wise person is some day going to discover you and give you a real chance to make still GREATER use of your ability to originate."



Convert That

Used Car Into a Truck

"Put a body on it," says this dealer, and "make a new truck owner"—Especially attractive sales can be made, he believes, to farmers needing a light vehicle.

DO not believe that the men who handle motor cars and trucks are sufficiently alert to the possibilities in utilization of used automobiles and of creating truck enthusiasts through the medium of the various attachments now on the market and which are sometimes called "truck builders." Nearly every day I run across a used motor car so badly weather-beaten that the owner does not care to use it for pleasure riding. I suggest converting it into a light truck and the idea is frequently greeted as a happy thought."

The speaker was William E. Drummond, truck sales manager of C. U. Williams & Son, Bloomington, Ill. Continuing he said:

Leads to Purchase of New Truck

"I meet truck dealers occasionally who differ with me. They argue that every time a used car is converted into a truck, the sale of a new truck is prevented. I think that this is a wrong viewpoint. The truck business, at least among the farmers, is in its infancy. Many of them cannot be made to see that a truck is just as important to them for farm work as their automobile and tractor. By utilizing one of the truck attachments in connection with an old automobile, at an expense ranging from \$400 to \$800, the farmer secures a truck with a capacity of one ton to two and one-half tons and will become so enthusiastic over the economy of the machine that he is apt to become a truck booster and to purchase a new machine for the heavier

"Nearly every dealer in motor vehicles is confronted with the problem of disposing of his used automobiles. In numerous instances, the entire profits of the business are wrapped up in such machines. Some can be disposed of without much effort but others remain upon the hands of the dealer. The truck attachment solves the problem and two birds are killed with a single stone.

"Every dealer in motor vehicles knows that the front system of a good passenger car, its power plant, is essentially the same as the front system of a good motor truck. If he is a doubting Thomas let him compare the specifications. If a prospect also is skeptical it is a simple matter to set him right.

"I found a case of this kind near Lexington. Roy Monsell, a young farmer,

owned an old time Mitchell automobile. It was too decrepit in appearance to be used for pleasure riding. I induced him to convert it into a truck. He secured such excellent results that I recently was able to sell him a new Republic. The latter sale might not have taken place but for the adaptation of his used automobile.

"Upon farm after farm there is a well worn automobile that contains thousands of miles of dependable truck service. when applied through properly reduced gear ratio, to the work of motor hauling. The connection can be made simply. The body, rear axle, rear springs, rear wheels and tires are removed from the automobile, leaving the original power plant, including the front portion of the frame, front axle, front springs, front wheels and tires, to form the front system of the truck. The frame of the truck attachment is made to telescope the frame of the passenger car chassis to the point where the proper wheel base is obtained. The frames are then hot riveted or bolted together. At the point of joining, one frame lies inside the other, so that when riveted, this part of the frame is doubly reinforced. Thus the truck frame is really the strongest at the point of attachment and fully as strong along its entire length as any high grade truck frame of equal capacity and standard construction.

Many Such Trucks In Operation

"Any good used car attains its maximum value and usefulness when combined with one of the truck attachments now on the market. Thousands of such attachments, made during the past year, have proved to my satisfaction that a good passenger car front system is also a good motor truck front system. It is conceded by all who have made a study of motor vehicles that the rear system of a motor truck carries 90 per cent of the load. The front system pulls the load.

"I have watched the performance almost daily of some of these built-over passenger cars and can testify to a saving of 50 per cent in initial cost, an ultimate economy in maintenance and dependability in operation. All that is necessary is to assure the buyer that the truck attachment has the qualities that will give first class, reliable, and economical service. There are a number of these attachments now on the market

What Do You Think?

This story was shown to a large truck dealer in New York who declared that he doubted the practicability of doing what Drummond suggests—that convertible truck bodies be put upon used cars and then sold as converted trucks. Drummond is a successful truck salesman, but the New York dealer believes only in the sale of trucks that were built to be trucks. What do you think about it? Will a converted truck make the owner a believer in commercial vehicles and cause him to buy again, as Drummond believes?

and I believe that every dealer who handles passenger cars and who may have used cars to dispose of, as well as truck dealers, should carry one of these lines in addition to the motor vehicles complete. They will prove profitable as a side line, while, at the same time, they will aid in getting rid of the second hand cars and also serve as missionaries in stimulating interest among farmers and others who have not yet been converted to a truck or who do not have the means to finance a new machine."

Do You Type Your Name on Your Letters?

Were the signatures readable on the letters you signed yesterday?

Many business men have found it of value to have the name of the signer typed by the stenographer when writing the letter, in the space just below that left blank for the writer's pen. It seldom is possible to read a name that has only been penned, unless one has the combined abilities of a hotel clerk, a detective and a handwriting expert, and most business letters are written by persons whose names do not appear on their company's letter head. A specimen of the typed-in name would be:

"Yours sincerely,

James F. Smith, Sales Manager, Western Division."

The reasons for this are too numerous to mention. It might be added, however, that one of the most stringent regulations of the American Expeditionary Forces in France was that all signatures should be so typed. With thousands of officers signing communications, reports and records, this was deemed necessary in the efficient working out of the army "paper work." It is no less important in business for the reader of a letter to know the name of the man who signed a letter. It prevents mistakes and aids in promoting that personal touch needed in the successful and continuous operation of every sort of business institution.

Take a look at your signature and decide honestly whether or not it can be deciphered by a stranger.



THE LAW

By George F. Kaiser

PERPLEXED

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Seek Uniform State Laws to Curb Car Theft

Since the theft of automobiles has increased to such large proportions the insurance companies have been endeavoring to find some lawful method by which the market for stolen cars may be lessened or entirely destroyed.

As a result, one company proposes to issue an abstract to car owners in book form to be used during the entire life of the car. In the abstract, bills of sale are provided in consecutive order and attached to each bill is a duplicate." Upon the purchase of a new car from the manufacturer, or upon the purchase of a used car from an owner, a bill of sale will be made by a notary and sworn to. The notary will then detach the duplicate bill of sale and send it to the insurance company's office. From there the duplicate will be forwarded to the Motor Vehicle Department or the Secretary of State and the owner of the car will receive a guarantee of title which is to be attached to the abstract. The transfer fee for each transfer will not exceed \$2, and, from this amount, the notary will deduct his fee, which it is assumed will not be more than fifty cents.

In a general way, automobile owners look with favor upon this plan as providing a workable method by which cars can be kept track of; the numbers of the various parts and alterations in the engine and body recorded. Assuming that the plan is generally acceptable the next thing is to make it universal by having the same law enacted in each state. The title company claims that its uniform bill has been submitted for consideration and approval in practically every state having a legislative reference bureau and that in no instance has the measure met with adverse action.

As to the constitutionality of such a bill, it may be said that this legislation is proposed solely in the interest of the public and that it has for its purpose the suppression of crime, which is on a par with the efforts of the state legislatures to regulate matters having to do with the public health, morale and safety. It is a well supported rule that the powers to make municipal regulations for the restraint and punishment of crime have never been surrendered by the states or restrained by the Constitution of the United States, while the Supreme Court of the United States has

said that state legislatures may legislate to prevent the spread of crime.

Placing the value of each stolen car at \$500—a very reasonable valuation when it is considered that the cars stolen range from \$100 to \$3,000 in value—the total investment in these stolen cars has been placed at \$9,611,000. These figures, of course, represent only the thefts in a few of the larger cities. Every day, in smaller cities of from 25,000 to 50,000 population, from three to five cars are stolen.

It is also represented that mechanical devices and locks to prevent stealing of cars are selling from \$3.50 up to \$25, and a few for as much as \$35. If one figures from the basis of \$5 average charge for the locking devices on the 6,300,000 cars in America, the total investment in this one protective measure is approximately \$31,500,000—an additional expense to the motorist that does not stop the thief.

Decision Regarding Compensation Law

An interesting case under the New York compensation law recently came up in that state. A garage foreman found a revolver in a car, which had been left in the garage. He took it into the office to show it to one of the employees. While handing it to the employee, so that the latter could examine it, the revolver accidentally went off and the employee was killed. His representatives sought to recover for his death under the New York compensation law. Recovery was denied, however, as it was decided that neither the foreman nor the employee was acting within the scope of his employment at the time of the accident. Culkaner vs. Economical Garage 176 N. Y. S. 508.

Decided Ownership of New Car

The Court of Appeals, of Texas, in a recent case, where a question arose as to who owned a particular car, decided that where the purchaser of an automobile turned in his old car for \$500 of the price of about \$2,000, telling the seller to keep the new car for him, there was a complete sale, passing title, despite the absence of change of possession and non-payment of the balance of the price, the intention of the parties that title should pass being controlling. John E. Morrison & Co. v. Murff. 212 Southwestern Rep. 212.

The Time Allowed Non-Residents

The following information as to the time allowed non-resident motorists has just been compiled and published by Secretary of State Francis M. Hugo of New York:

Arlzona—6 months
Arkansas—Reciprocal
California—3 months
Colorado—90 days
Connecticut—Reciprocal
District of Columbia—Reciprocal
District of Columbia—Reciprocal
Delaware—Reciprocal
Florida—30 days
Idaho—Reciprocal
Illinois—60 days
Indiana—60 days
Indiana—60 days
Indiana—60 days
Indiana—60 days
Indiana—60 days
Indiana—Reciprocal
Kansas—30 days
Kentucky—Reciprocal
Kansas—30 days
Maryland—Reciprocal
Maine—30 days
Maryland—Reciprocal
Michigan—90 days
Mississippi—60 days
Mississippi—60 days
Mississippi—60 days
Montana—Reciprocal
Nebraska—30 days
New Hampshire—20 days
New Hampshire—20 days
New Hampshire—20 days
New Hampshire—20 days
North Carolina—60 days
North Carolina—60 days
North Dakota—Reciprocal
Ohlo—Reciprocal
Ohlo—Reciprocal
Ohloma—Reciprocal
Ohloma—Reciprocal
Rhode Island—10 days
South Carolina—30 days
South Dakota—Reciprocal
Tennessee—30 days
South Carolina—30 days
South Dakota—Reciprocal
Tennessee—30 days
Vermont—Reciprocal
Washington—90 days
West Virginia—Reciprocal
Washington—90 days
West Virginia—Reciprocal
Washington—90 days
Under the provision of the New Yor

Under the provision of the New York Motor Vehicle Law, a car registered by and displaying registration numbers of another state may be operated in New York for the same length of time granted by that state to cars registered under the laws of and owned by residents of New York State.

Owner of Car Not Responsible for Driver's Negligence

The Supreme Court of Louislana recently decided that as long as the driver is competent, a person lending a car to him is not responsible for damages caused by his negligence when he is using the car for his own purpose. Marullo vs. Pasteur, 81 So. Louisiana

Automotive Equipment

MILES STANDARD PISTON VISE

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This vise is designed to hold a piston while assembling or disassembling connecting rods or while reaming piston pin bushings. The jaws are lined with babbitt to prevent injury to the piston and it is an easy matter to reline them when the babbitt becomes worn. The vise operates by a screw and the hole through the bottom permits of performing all operations on the piston, even with the connecting rod assembled. Price \$10 .-Miles Mfg. Co., Newton, Iowa.

JEAVONS SPRING LUBRI-CATOR

This cover for leaf springs is made of enameled duck. laces underneath the spring. The duck encloses a wicking which surrounds the spring leaves. Oil from a conveniently located cup is carried by this wicking to every part of the spring and insures the thorough lubrication of the leaves. Standard color is black, but any color is made to order. Lubricators are made for all cars.— Jeavons Spring Lubricators, 1607 Prospect Avenue, Cleveland.

IDEAL TIRE RELEASER

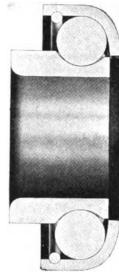
This device is designed to automatically release the air from the tube. It is made of steel and illustration shows it full size. In operation, both sides of the releaser are pressed and it is then slipped over the valve stem until the plunger strikes the valve core. When released, the spring engages with the threaded valve stem and the air escapes. The idea is that the use of this device enables the operator to use both hands to remove a tire from the rim or to roll up the tube .--Van's Auto Specialty Co., Clyde, Ohlo.

TABER TIRE DRESSING WHEEL

This wheel is designed to produce a fine ribbed surface for vulcanizing retread, patching, sectional inlay or half-sole tire work. The blades, which may be replaced at a nominal cost, are so designed as to produce the desired vulcanizing surface without injuring the fabric or tearing the threads of a cordtire. The wheel will also trim off and remove markings from the side walls of the tire. The wheel is 5 in. in diameter with a 2 in. face and a 11/4 in. hole. Bushings for any size arbor are furnished. Price \$15; blades \$3







B-N Bearing



Jeavons Spring Lubricator





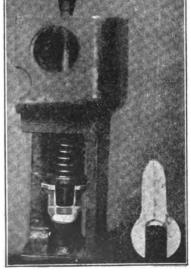




Taber Tire Dressing Wheel



Triple Gear Riveting Block



Mickey Valve Lifter

per set .- T & Tire Tire Dresser Co., 504 Mission Street, San Francisco.

B-N LONG LIFE FRONT WHEEL BEARINGS

These ball bearings are for the front wheels of Ford and Chevrolet cars. They are constructed in such a manner as to prevent the separation of the cones from the ball races; in effect, the bearing is a unit. It is stated that owing to the form of construction it is possible to run with a loose wheel adjustment without damage resulting. List price for two sets, installed, is \$3.50, and sample is furnished dealers for \$2.-Burgess-Norton Co., Geneva, Ill.

TRIPLE GEAR RIVETING BLOCK

This device is designed to facilitate the riveting of the Ford triple gears. In operation, the gears, with the rivets, are fastened with a nut on the block, the latter being then clamped in a vise, ready for the actual riveting to be done. The use of this equipment makes the job a one-man proposition and saves considerable time. The block is made of tempered steel. Price \$3.50.—Miles Mfg. Co., Newton, Ohio.

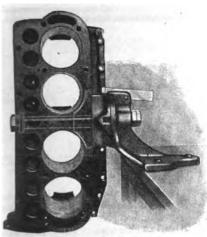
MICKEY VALVE LIFTER

This device is designed to lift Ford inlet and exhaust valves and to hold them in position for grinding. As the lifters may be applied without removing spring caps they may be applied to all eight valves in about a minute. There is ample room for the push rod to operate so that the engine may be turned over with the lifters in position. The lifters are made of aluminum alloy. Price \$3.50 per set of eight, or 50 cents each.—Van's Auto Specialty Co., Clyde, Ohio.

A. B. REPAIR STAND FOR FORD ENGINES

This stand holds either the cylinder block or the complete Ford engine assembly breasthigh in any one of four positions, allowing the mechanic to work with rapidity while repairing, assembling or taking down. The work is held clear of the bench, without obstruction in any direction. The holding bolt is cast in the revolving part of the stand, hence there is no trouble in placing the work in position. The bolt does not interfere with work on the center bearing bolts and nuts. Price \$10.—G. H. Dyer Co., Cambridge, Mass.





A. B. Repair Stand

ANGSTEN-KOX HUB CAPS FOR FORDS

These hub caps are made of cold rolled steel, properly threaded and machined to size. Finish is in nickel-plate over copper. The cap measures 2 in. in depth inside and is similar in all respects to the regular type.

—Angsten-Kox Co., 5021-5025. South State Street, Chicago.

HALLADAY TRUSS SPRING BUMPER

In this bumper the bar is made in two pieces, each of which is full length. The ends are joined by flexible connections. The inside, or rear bar is curved forward at the center and is secured at this point to the forward member, thus forming a truss type of construction which stiffens the bar while allowing it to yield under impact. L. P. Halladay Co., Streator, Ill.

WESTERN TIRE SPREADER

This appliance is designed to accommodate any tire from 3 in. to 5 in. and to spread it sufficiently to permit of inside repair The tire is spread at the work. same time as it is revolved on the six rollers of the equipment. Small rollers grip the tire and tread rollers carry its weight. A hinged joint allows the front rollers to fall back when placing a tire in position or when removing it from the spreader. Price \$10.—Cote-Hinton Mfg. Co., 102 Main Street, Santa Ana, Cal.

EMCO SPRING SUPPORT

This device is designed for Chevrolet, Saxon and other cars equipped with quarter-elliptic springs. Its function is to take the strain off the bolt and transfer it to the forged steel bracket which fits snugly over the leaves of the spring and holds the bolt in place. clamp consists of a steel spring bolt, a forged steel bracket, a tubular steel nut and a lockwasher and nut. There is a different style for each type of car and a different model for front and rear springs. List price is 12 each.-Emco Mfg. Co., Binghamton, N. Y.



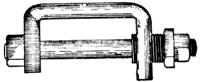
Angsten-Kox Hub Cap



Hailaday Truss Spring Bumper



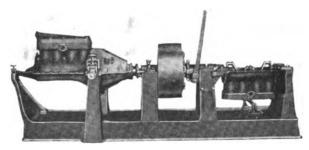
Western Tire Spreader



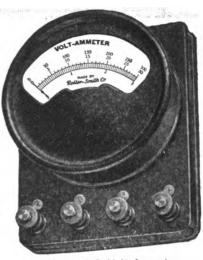
Emco Spring Support Clamp



Angsten-Kox Timer



Mlies Burning and Test Machine



Handy D.C. Volt-Ammeter

HANDY D. C. VOLT-AM-METER

This instrument is designed for garage, service station and repairshop use. The mechanism is of the permanent magnet, moving coil type, giving uniform scale divisions and dead-beat indications. Magnets are of tungsten steel, jewels are Ceylon sapphires and the hardened steel pivots are ground and polished. The entire mechanism is mounted on one base, to insure permanent correct alignment, and the case is of drawn brass. The instrument is furnished in any one of a wide range of calibrations. List price is \$25.-Roller-Smith Co., 233 Broadway, New York.

ANGSTEN-KOX TIMER FOR

The shell of this timer is made from special steel and the ring from hard vulcanized fiber. It is machined to size and then polished, insuring a constant contact. The roller casting is made of brass and the steel roller is hardened. The oil inlet is protected by a spring cover. Finish is black enamel on a coating of copper. Price \$1.25.—Angsten-Kox Co., 5021-5025 South State street, Chicago.

MILES COMBINATION BEAR-ING BURNING AND FINAL TEST MACHINE

This machine has been deveioped to provide a method of fitting bearings quickly and acwith inexperienced curately help. At one end the engine needing attention is placed in an inverted position, permitting one bearing to be burned in at a time if desired. All bearings or any number can be dealt with simultaneously. After the bearings are burned in and the engine reassembled it is placed at the other, or final test, end of the machine, where it is run under the belt. When testing out the engine is run under its own power. The machine can be run at any speed; it occupies a floor space of 20 x 94 in., and the price is \$325.-Miles Mfg. Co., Newton, Iowa.



Repairshop Shortcuts

From Motor World Mechanics

No. 2224—EQUIPMENT FOR SHARP-ENING LATHE TOOLS

A saving of over 50 per cent of the time usually occupied in sharpening lathe tools can be effected by taking a 1/4-hp. electric motor, removing the regular shaft and replacing it with one which protrudes 4 to 5 in. at each end. Fit a drill chuck at one end and a combination fine and coarse emery wheel on the other and mount the motor on the bed plate of the lathe, as shown. A stand and adjustable face-plate feeds work to the drill and a snap switch is installed on the top of the motor, which can be plugged to any convenient lampsocket.—C. W. Chapin, Bird Island, Minn.

No. 2225—A LADLE FROM A FORD TIMER

A small ladle can be made from a Ford timer by taking out the contacts and fiber ring, filling in the terminal holes and oil hole with rivets and attaching a handle. The handle is made out of a piece of ½-in. steel rod about 1 ft. long, the end being filed down flat and a hole drilled through it so that a bolt can be run through this hole and through the hole in the advance arm.—

J. Campanella, Glenview, Ill.

No. 2226—A HANDY LIFT FOR OIL-BARRELS

Lifting oil barrels with a more or less greasy rope is an unsatisfactory proposition owing to the danger of slipping. A safe lifting equipment can be made as follows: Take two ends of a broken main leaf of a car spring, bend the ends into hooks and run a short length of chain through the bolt holes as shown in sketch. This will not slip in operation and is very efficient.—E. G. McMenamin, Seattle, Wash.

No. 2227—A GREASE CUP STUD' EXTRACTOR

Sometimes it happens that a grease cup is broken off, leaving its stud or stem behind, as in the case illustrated. A square punch made from %-in. octagon stock and formed so that its end is in line with the head will be found useful in removing the stud. The square end of the punch, when the latter is struck sharply with a hammer, will enter the relatively soft material and facilitate its speedy removal without damage to the shackle-bolt, etc.—F. Long, Massillon, Ohio.

Make a Dollar

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3-Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town. Write plainly.

No. 2228—A WELL-ARRANGED TAP AND DIE BENCH

Taps and dies should occupy an individual bench. Otherwise they are likely to be mislaid and not be immediately available when needed. A handy arrangement is to have both dies and taps on boards slightly elevated at the back, with the smaller taps at the top, graduating to the largest at the bottom. Dies should be similarly arranged at the opposite end of the board, with handles side by side in the center. Nuts of proper size and thread should be placed opposite each die and bolts opposite each tap. The adoption of this method shows the repairman how he stands at a glance. Have the S. A. E. set to the left and the U. S. standard to the right, with a vise placed in the center of the bench.-C. R. Pierson, Salineville, Ohio.

No. 2229—SAVING WASTE FROM DRIPPING OIL BARREL

By cutting an 8½-in. hole in the shelf in front of and below the faucet of an oil barrel and fastening an old lamp reflector to the underside of the shelf so as to cover the hole the drip can be collected in a suitable can. That this arrangement is a satisfactory one can be gathered from the fact that as much as 3 gal. has been saved from a single barrel in a day.—C. Brodel, Chicago.

No. 2230—USING A MIRROR TO IN-SPECT PISTON RINGS

When fitting piston rings in cylinders, this little tool will be found of great assistance in ascertaining whether the space is correct. Take a piece of sheet tin, form it as shown in sketch and place a small pocket mirror on the round part, bending over the ears to hold it firmly. If a light be held over the cylinder and the mirror be held to the ring opening, the user can at once see if the space is correct.—F. Long, Massillon, Ohio.

No. 2231—A SHORTCUT FOR SHORT-CUTS

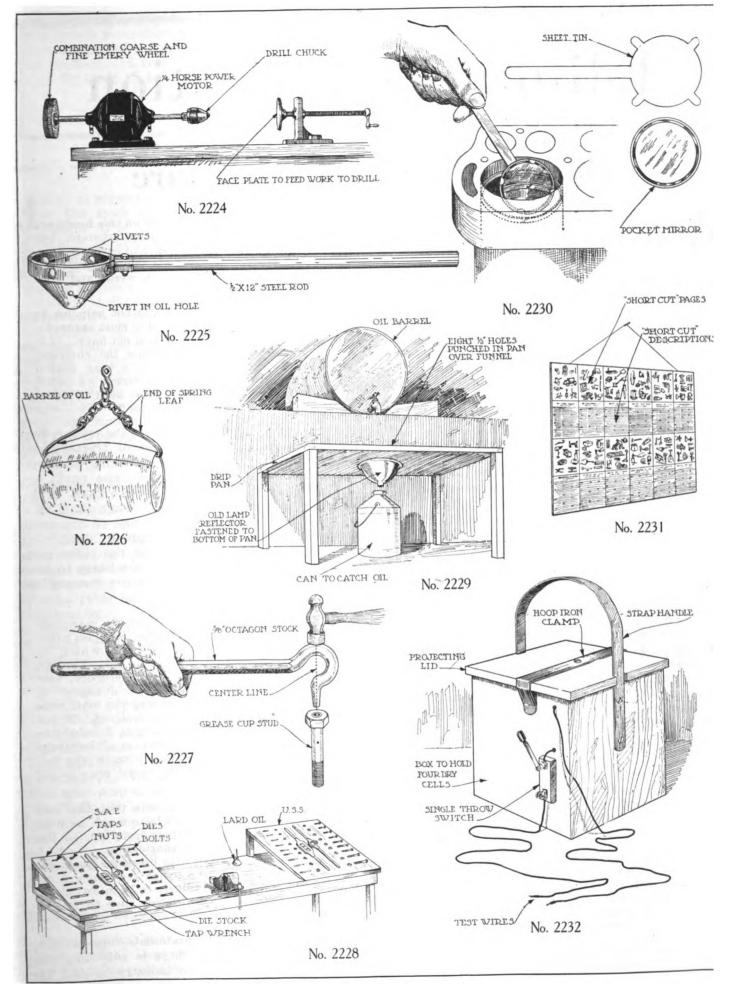
The Repairshop Shortcuts published in Motor World each week can be made more useful to all the men in the shop by tearing them out of the book and mounting them on a piece of beaver board which is divided up by pencil lines so that the pages will fit into the spaces. It is convenient to have the board four spaces deep and as many spaces wide as space will permit, then the reading matter can be pasted over the illustrations.—Mrs. R. B. Hinds, Hinds Garage, Moriah Center, N. Y.

No. 2232—A USEFUL ELECTRICAL TEST SET

Take an ordinary wood box of suitable size to hold four dry cells, make a lid slightly larger than necessary, so that the cells will be thoroughly protected if the outfit is used outside in wet weather, and hold it in position with a piece of iron hoop bent over on each side against the box. One wire is run through a hole in the box and the other is connected to a single-throw switch, from which another testing wire is run. These test wires may be sufficiently long to enable work to be done on a car, etc. The object of using the switch is to enable the circuit to be left open and thus prevent shorting if the test wires make connection through falling on one another. The handle of the box is made of an old tire flap .-- Mrs. H. M. Fechner, Wacd,



MOTOR WORLD



Editorial Observation

Building for Tractor Future

HEN the war came along and set the whole world ahead by several decades it advanced a great many things that haven't yet been discovered by many people. Sometimes we are so close to things we can't see them.

To apply this general specification to the tractor industry is not difficult. Take a keen look at the situation and you will discover that, while prices of food had been slowly climbing for years, they jumped ahead to the point it might normally have taken years and years to reach. With this went the farmer's buying power.

The emergency demand for production injected an element of efficiency which might never have come without years of progress and development. With this goes the farmer's recognition of his need for power farm machinery.

Also, set ahead was the demand for better things in every line, and especially in merchandising and attention to the needs of the buyer. There has come into existence in the farm field a farm business magazine, System on the Farm, which is going deeply into farm problems. The magazine met a need that was thrust into the face of the world by the rapid advance in conditions, and, naturally, the magazine is treating problems that never would have been treated for years had not the whole world been shoved ahead with one jump.

One of these problems is set forth by a farmer reader in the July number, who complains of the merchandising service that is being given him by some of those who have not yet awakened to the fact that the world has moved. Having determined to buy a tractor of some kind somewhere, he recites his experience as follows:

"To illustrate what a fellow is up against, I had about made up my mind as to the one I wanted. From what I had read, I thought it would be about the kind I wanted, but I wanted to be sure of a few points, so I wrote the factory in Illinois. After waiting for two weeks, I received a letter stating that they had taken the matter up with their branch in New York State, which would write me. After some time, this branch did write and said that they had taken the matter up with their Baltimore house, which handled my district. The Baltimore house, in turn, said a Richmond firm had the state agency and they were being notified as to my inquiries. These people were more prompt than the others, and I received a letter stating that a certain hardware company in Charlottesville would give me the information I required if I would call on them. Now it happened that I had called on this hardware company before writing the manufacturers, but could get no satisfaction, as they had never had one in stock and could not give me the information I wanted. So it took me over six weeks and then I found out nothing.

"This experience, of course, did not help me to decide on the tractor I did want, but most assuredly did fix one in my mind that I would not have. If it was that much trouble to purchase the complete outfit, where would I come out in a busy season on repairs? I firmly believe that there is an implement company which is in as great need of some system as I am in need of a tractor."

System on the Farm then answers the reader, taking up first a discussion of types of tractors and advising the farmer that if he is "looking at a machine that has a lot of parts and those parts are quite largely open to the dust, you are right in deciding that there will be more breakage than on a tractor that has few parts, with most of the parts enclosed in cases that will not admit the dust."

The magazine also suggests that the older companies—as is not always the case—are likely to have a well organized system which assures prompt delivery of parts. It says:

"If you intend to buy direct from the manufacturer, as did our Virginia subscriber, you can probably get an idea as to the rapidity with which repairs will be shipped by doing as he did. That is, when writing to a number of manufacturers, note the promptness with which you get a reply. It might be well, also, to ask how long you will have to wait when orders for parts are received. If you have a tractor manufacturer near you, it might be well to buy from him because, in case of breakage during the busy season, you can drive to the factory for the parts. That is the surest way to get them promptly.

"From my experience, I am sure that the cost of the repairs does not amount to so much as does the loss of time in getting them installed, so the time element is well worth considering. * * *

"The trouble I have had with breakage leads me to believe that a tractor on which you can get repairs easily and quickly is likely to be more profitable to you than one on which you have to wait a long time for repairs."

With farmers demanding up-to-date representation and business-like attention there is only one thing for the builders of the tractor industry to do. They



must advance their own minds and views forward by at least a generation, ascertain so far as they can where the industry might normally have been in a half century, and then make every effort to bring about TO-DAY those conditions in merchandising, service and construction which, but for the great world upheaval, might have been reached only in 1950 and 1975.

As men measure up to the standards of demands so will they succeed in the new age that is with us.

Making a Million

Just at present there seems to be unusual activity in the stock market, especially in automotive stocks. It is not remarkable that this should be so because we are, so the experts say, on the threshold of an era of great industrial activity; wherefore, folks are wondering which is the quickest way to "make a million or so" while the making is good.

Without doubt some will "make the million"—and others won't. The greatest essential at present is that common sense govern our actions and that those who set out "to make the million" don't lose their heads at the start, for that is the surest way NOT to make the million.

Motor World seldom comments on the matter of stocks. It is concerned more with helping build a great automotive industry and a great trade that sells the products of that industry—at a profit. But a few words at this time are not amiss.

Investigate Commercial Possibilities

To the man who sees numerous newspaper advertisements of this stock and that, all of which "look promising," the best advice is to make fairly sure the proposition has possibilities of going through to commercial success in some reasonable degree. And the best place to get this information is from your banker or some other person equally capable of giving sound information.

Every man in the trade should enjoy fairly close relations with a banker. If you are not now acquainted with a banker get acquainted. He will be glad to help you along in business so that you may put money in his bank.

Don't be stampeded by stock salesmen or stock advertising. And don't get too enthusiastic over the glowing tales of the miraculous successes in the automotive business. The stock salesman is prone to say: "Look at Henry Ford!" Very well! Look at him if you want to. We are all proud of his success, but those who stop to cogitate a minute will at the same time "look at" a great army of others who have, all told, lost as much as Henry has made—and then some. Ford's success is due to a combination of circumstances, among which one should not overlook some very efficient management of production and sales.

Not All Ford Imitators Successful

Within recent years others have set out to duplicate the great Henry's feats, and the results have been far from pleasant. Stock has been sold to small

and large investors, and in the end there has had to be reorganization in which the investments dwindled sadly. Eventually some of these companies get onto a production basis of some sort, but at the expense of the initial investments, for, before production is reached, more money has to be put in, and, at that, the eventual production is very small when compared with the original aspirations.

Also remember that the greatest successes in the automotive field were made by companies in which a group of men, small in number, got money together, started their enterprise and gambled on their own ability to make good. They did not start out to sell millions of stock as a beginning.

True, business can be begun in that way and sometimes the investor makes a lot of money. And sometimes it works out entirely the other way.

It is regrettable that promotions always attach themselves to the greatest and most successful industries. But it will probably always be thus. The sane course for the would-be investor is to look well before he leaps, for the whole matter is his own little May party. Buying stock is, like religion, purely a personal matter. To buy or not to buy is up to YOU. Of course, consult some authority such as a banker, but even then you must depend on your own judgment.

Buying Suits and Buying Stock

Men buy suits of clothes only upon careful inspection of the goods and the company selling the goods. They will think twice before buying a \$40 suit if there is a \$35 suit that seems just as good. They value the difference of \$5. Yet thousands of these same careful people have been most careless in the way they have bought stocks, KNOWING nothing about the company, the business or the possibility of a return on the investment.

Perhaps a safe rule to follow is: If in doubt, don't buy.

Coupled with it is this advice: Make an honest effort to find out something about the investment from a man who understands the investment business. Consult your banker, or some equally capable man in whom you have confidence. Don't buy merely because you read an advertisement or a circular. If you do that you may be sorry—or may "make a million."

Get all the facts in hand and then go away by yourself and think it over for forty-eight hours. Use the common sense that has guided you all your life and you can't go far wrong.



SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

Plan No. 1

Building for Tires and Accessories

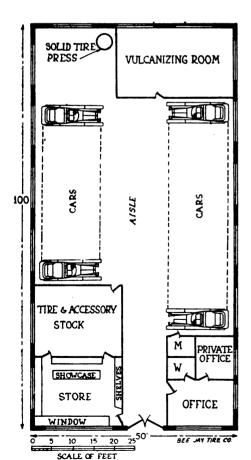
Character of Business—Sale of tires and accessories.

Details Wanted—Facilities for handling tires and accessories; vulcanizing room; arrangement of cars; garage entrance with drive-in arrangement to avoid parking of cars in streets.

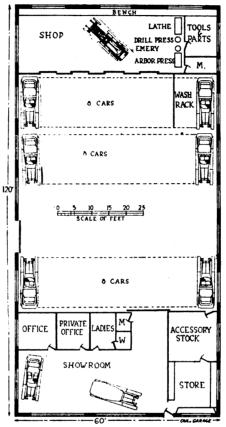
Name—Bee Jay Tire Service Co., Davenport, Iowa.

Answer—This plan includes an accessory and tire store, an accessory and tire stockroom, general and private offices, toilets, vulcanizing room, and garage space for working on customers' cars.

The driveway entrance has been placed slightly to one side of the center so that additional space may be had for the store and stockroom.



Plan No. 1 — Building 50x100 ft., designed for the Bee Jay Tire Co., Davenport, Iowa



Plan No. 2—Salesroom, garage and repairshop for the Owl Garage

Plan No. 2

Salesroom, Garage and Shop

Character of Business—Selling Fordson cars and service.

Details Wanted—Garage and shop, 60 x 90; location of showroom, stock-room, offices, workshop, rest room, entrances and exit.

Name-Owl Garage, Kennett, Mo.

Answer—In a general way we have followed the plan you submitted. However, we have transformed the front end of your stockroom into an accessory store and have placed the office along the side of the building so that you will have better light and ventilation.

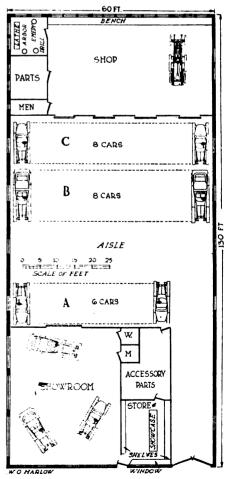
Plan No. 3 One-Story Sales and Storage Building

Character of Business—Sale of, motor trucks, passenger cars and accessories; general storage business; service.

Details Wanted—One-story building with provision for a second story; workshop; storage room; showroom; accessory parts.

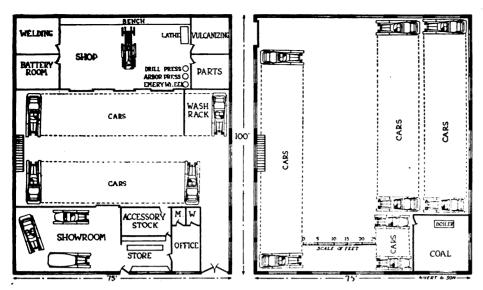
Name—W. O. Harlow, Kalamazoo, Mich.

Answer-The plan shown is drawn according to your specifications. Perhaps the only point requiring explanation is the arrangement of cars in the garage. This space is large enough for the storage of two rows of trucks or three rows of cars. Cars in row B should be ones which go out early in the morning, those in row C those which go out late, and those in row A are ones which cannot be put in either classification. The double row of cars in front of the shop doors will hardly cause any difficulty in bringing cars into the shop, inasmuch as the series of sliding doors makes it possible for a car to enter at any point desired.



Plan No. 3 — One-story sales and service building for W. O. Harlow





First floor

Basement

Plan No. 4—Sales and service building designed for Nivert & Son

Plan No. 4

Garage on Corner Lot, 75 x 90

Character of Business—Sales and service of Fordsons.

Details Wanted—Corner building, 75 x 90, with rear of lot 18 to 20 ft. lower than the front one; shop in basement for battery and acetylene welding work, also vulcanizing; office, salesroom, store and toilets on main floor;

storage for 25 cars on top floor, with room for some in basement; electric elevator.

Name-Nivert & Son, Glasgow, Mo.

Answer—For many reasons it was advisable to place the shop on the first floor, and we believe that if you study the plan you will agree with us.

The accessory stockroom is located just back of the accessory store and the parts room is located in the shop. Under

the circumstances this makes the most satisfactory arrangement.

The car arrangement in the basement is the best possible, considering all the circumstances. You probably are familiar with this type of arrangement. Cars in the front row should be the ones which go out early and those in the rear the ones which go out later. Thus cars in front are out of the way usually before those in the other row are moved.

Business Booms at Charlotte

CHARLOTTE, N. C., July 25—Conservative estimates based on last year's business show that the motor car and truck business done in and through Charlotte from July 1, 1919, to July 1, 1920, will approach the \$40,000,000 mark, providing the manufacturers are able to meet the demands. At present dealers are, for the most part, far behind with deliveries, with orders continually pouring in and with little hope being given them from the factories. Many dealers are without a single car on their display room floors.

Pennsylvania Gets Trucks

HARRISBURG, PA., July 28—The first consignment of War Department motor trucks has been received by the State Highway Department. There are sixty in the first batch, but 300 in all will be Pennsylvania's share.

LAUSON-EDISON FARM LIGHT AND POWER PLANT

A FARM light and power plant in which the engine is a separate member from the generator is being made by the John Lauson Mfg. Co., New Holstein, Wis. The engine is of heavy duty, slow speed type, and the generator is driven by a belt direct from the fly-wheel of the engine. It is possible in this way to make use of the engine power for other purposes besides driving the generator.

The engine is of the throttling-governor type with a make-and-break igniter, current being furnished by a Sumter magneto. The engine will operate either on kerosene or gasoline and special arrangements can be made to operate it on distillate or gas. The fly-wheels are heavy enough to prevent any slowing up of the generator between power strokes.

Lubrication of the engine is carried out by a Madison-Kipp force-feed lubricator, which has sufficient capacity to lubricate the engine for 36 hours without refilling.

The battery equipment is Edison. The switchboard is equipped with a switch for starting the engine from the batteries, an automatic cut-out which prevents the current from flowing from the battery through the generator, a rheostat for regulating the flow of current to the battery and a high-grade volt-meter and ammeter.

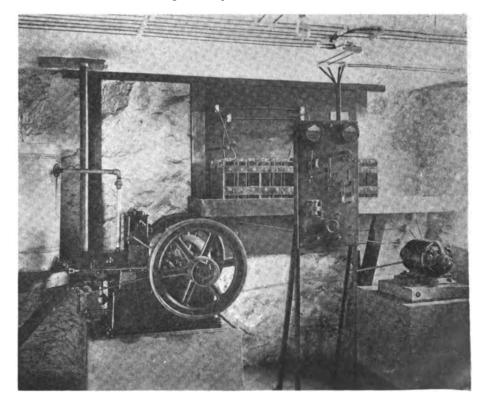
An end cell switch is provided for regulating the voltage to the lamp while charging the battery. This reduces the

voltage to prevent injury to the lamps.

The generator has a rating of 30 volts.

Lubrication is carried out by a ring oiler and the generator runs at comparatively

low speed. The pulley is firmly keyed to the shaft and each generator is provided with a sliding base to permit tightening of belt.



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Keep the Associations on the Job

Editor Motor World: First copy of MOTOR WORLD just in. Glad I blew myself for that lonesome "iron-man." Today's copy speaks about some of the trade associations "laying off" for the summer months. WHY, oh, why? Are you eastern fellows so durned self-satisfied, so pleased with your general trade conditions, so far advanced that you CAN AFFORD TO LAY OFF FOR A MINUTE—much less "for the summer"? Nobody home. Do we lay off? Where would we be if we did? Same place our "Bob" says some of the Eastern states are at right now. No thanks. We keep up the good licks. We like it too well. Getting results too steadily to "lay off." Hot? Sure, it's hot out here (at times) -your humble servant is not fool enough to tell you fellows just how hot it is right now, you might crow about .t. It's just a little unusual, that's all. So if it's too hot for meetings indoors, we have them OUTDOORS. (See enclosed card.) Nothing small about us (except our noodles and we can't realize that ourselves). Give the boys something out of the ordinary, keep the members themselves active in their OWN problem, and you won't have to lay off. Where do you suppose the California association or the locals either would have been if we had done business to the tune of a funeral dirge? Oh, you "Lay Off" boys, wake up! Do something. Yours truly gets the following notice cards out for every meeting. Fact is, I started the style out here and it's a winner sure.—A. V. Storer, secretary, Citrus Belt Automotive Trade Association, Pomona, Cal.

CARD

EVERYBODY, we meet next Wednesday night at May's Garage, Claremont. Let's go to it on time for there's lots to be done. Tire changing contest looms up fine. Get in on it. Bunch of new members up for inspection. Look good. Tire and Vulcanizing members! Bring that "5 per cent for cash" trouble before the meeting. DO SOMETHING YOURSELVES. You get from the meeting in proportion to YOUR OWN efforts. Get busy, choke trouble off before it hits you. Notice. Matter of more appropriate arrangement of our association name will be thoroughly discussed. If interested, show up. Association getting

stronger every day. Biggest year biz in our history ahead of us. Let's go. Storer, Sec'y.

Waiting, Just Waiting for Cars in England

Editor Motor World: I had quite a laugh to myself as I read your brief little article, "Keep Right on Selling," in the issue of June 4. Seems to me selling cars must be something of a rest cure in your country if being out of stock is so exceptional an event that you hold a sort of peace conference after delivering your first stock cars. Why, we haven't had a car in stock since early '15 and.

WANT SOME PICTURES?

Have the cartoons and other artists' drawings in Motor World ever struck your fancy?

If so, are there any of the original drawings you would like to have for yourself?

Any Motor World reader may have copies of cartoons and drawings he likes if he will ask for them.

First come, first served. What's yours?

during the war, the lame, halt and blind among us who escaped the conscription net spent our time in booking names on a waiting list.

The "waiting listers" were content to register for cars then only on paper, not even specifications published, they just bought on a name and paid deposits, too. It wasn't easy work selling on these lines, but it was better than sitting before the fire grousing about our hard lot.

Things are not much better now. I booked an Austin last Saturday for delivery next April and took an order today for a Ford that the purchaser fondly hopes to get in time to participate in a battle of flowers next spring. If some supernatural agency dropped us in a

dozen new cars to-day we should have to call out the standing army and special police to keep the crowd of buyers away. Just to give you some idea, people who order cars during the war and are getting delivery now, can sell their place on the delivery list for 50 per cent premiums; in other words, a man who has a Ford coming to-morrow say (costing £250) could sell his delivery date without any trouble for about £375. It's pretty bad, but we keep on selling, and smiling, just the same.

To those people who can't wait, we sell used cars. The way prices of these have gone up is amazing. Fancy £225 (about \$900) for a 1916 Ford that may have done 20,000 miles and shouts for an overhaul! This is not exceptional, I assure you, and it is not the dealer who does the profiteering. Everyone who has a car, naturally, holds out for the best price and the dealer, who must have something to sell, pays perhaps £200 and has to take the risk of repairs. What is more, so eagerly are cars snapped up that a man can easily spend a day before he gets a chance to buy one car. However, we have no selling problem at present, so we have something to be thankful for.—A. C. Thornton, 24 Market Hill, Maldon, Essex, England.

Against the Classification of Mechanics

Editor Motor World: Have you noticed the agitation in Oregon for the classification of motor mechanics according to some attempted scale of capability? Can you picture the work of the man or men who will be called upon to make the classifications?

Have you ever heard of the medical profession classing the doctors, the bar association doing the same with the lawyers and the dental profession with the dentist—or even the barber board doing this with the barbers? No, you have not. Are we to expect to have our few good men taken and have some one tell us what class they are in?

A physician who has a general practice can be a first-class doctor. So can one who specializes on feet or ears or eyes, but they are all doctors and there is no classification of them. If such an arrangement is not necessary or possible, why should the motor mechanics be classed? Are not our lives just as important as the money we spend on our automobiles?

Many of our best and most practical men could not be tested by any idea



that might be conceived other than upon the service they might be to their clientele or their employers. Where are we to find and how do we train the man to classify these poor unfortunate mechanics? Are we to take courses in personality reading or would it be the civil service and politics that would govern?

I ask that these points be explained so I can in turn explain them to some sixty workmen for whose services I am responsible.

With the shortage of first-class and faithful men we now can employ, and with the rate these experienced men are leaving our ranks, how long will it be before we are to meet a crisis that will make us realize that a man in the automotive repair industry does not have anything slipped to him—that all any of them has, has come by hard knocks? Unless we can show something in environment, the inducement will have to come in wages.

It would seem that, if the same effort were used to see that the mechanic was not called upon to work on so many unsanitary cars and in so many unhealthy garages, civilization would be helped more. Make a national garage inspection law and forget the classification of mechanics.—David Onan, Minneapolis, Minn.

Finds Motor World Indispensable

Editor Motor World: We are to-day taking the pleasure of writing you on one of our letterheads which we had you to design. We wish to thank you for designing same. We would not be without Motor World for three times the subscription price, as there are many helpful suggestions in same.

We do not see how any garage can get along without this wonderful magazine.—John N. Ashman & Son, Stelvideo, Ohio.

Tractor Manufacturer to Sell Cars and Trucks

ST. LOUIS, July 28—W. A. Roberts, a veteran of the tractor merchandising field, has left the J. I. Case T. M. Co. to take up the sale of Reo cars and trucks as vice-president and general sales manager of the Vesper Automobile Co. in Kansas City. In association with F. W. A. Vesper, president of the new concern, Buick distributer in St. Louis and head of the N. A. D. A., together with Walter H. Vesper of Oklahoma City, brother of F. W. A. Vesper, and Dave Castles of Muskegon, Mich., Roberts will handle the Reo in western Missouri and eastern Kansas.

Roberts, who will be remembered by

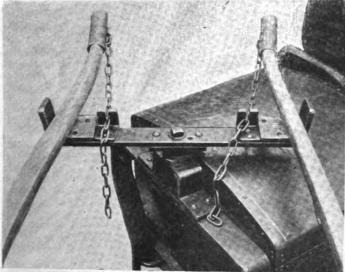
Motor World readers as an adviser on "Why the Dealer Should Know Tractors," has been with the Case company for eighteen years, much of the time as manager of the factory branch in this city. He has been active in organization affairs and is treasurer of the St. Louis Automobile Manufacturers' and Dealers' Association. He has been a director of the association for the last year and has been on the show committee for two years. He leaves the Case company with the best wishes of that company. E. P. Burch, assistant to Mr. Case, is acting manager of the St. Louis branch.

\$90,000 Home for Automobile Company

NEW ORLEANS, LA., July 30—Crawford, Jenkins & Booth, Ltd., handling Paige and Jordan cars, have bought a lot 60 ft. on St. Charles Avenue and 120 ft. on Erato Street, and will put up a 3-story brick building to cost in excess of \$90,000, and to be completed by November.

Display windows will occupy both the St. Charles and the Erato Streets sides. Salesrooms, offices, parts department and service station will occupy the first floor; shops and repair plant, the second floor, and storage rooms, the third.

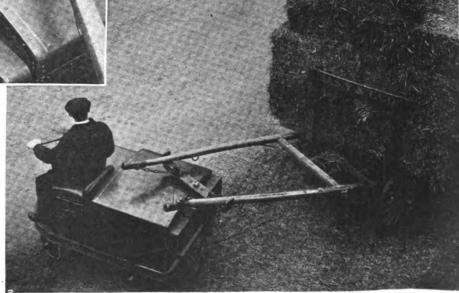
H. M. Parker, recently connected with the industry in Florida, has been appointed manager of the company.



A WAGON hitch for drawing wagons with industrial trucks has been developed by Arthur D. Shanks, and is being manufactured by the Mercury Mfg. Co., Chicago. This hitch can be used universally in connection with vagon shafts, and is claimed to be very fexible. Any size shaft can be coupled because the chains are adjustable, and it would not make any difference whether one shaft was shorter than the other because the chain adjustment will take care of this. The hitch is mounted to the tractor by having a brace bolted on each side of the frame and the diagonal rod which runs to the hitch fits into a hole in the lower end and is held in place by a cotter-pin. With this arrangement the hitch can be taken off or put on in a very short time. An interesting feature of the hitch is the ability to back the ordinary vagon.

Mercury Wagon Hitch

An Interesting Hitch That Permits of Drawing Horse-Drawn Vehicles Without a Special Towing Arrangement



The RETAIL NEWS

PACIFIC COAST

The Sierra Electric Company, San Francisco, has been appointed Pacific Coast distributer for the Chicago Solder Co., maker of Kester Self-Fluxing Wire Solder.

Clyde Cars Co., San Francisco, has moved from 1028 Geary Street to 1217 Market Street.

- C. P. Redwine, Mountain View, Cal., proprietor of the Mountain View Garage, is erecting a new building 75 x 160 ft. at 244 Castro Street as a Ford car and Fordson tractor sales and service headquarters.
- E. Schmidt, Mountain View, Cal., formerly operating the Reliance Garage, has removed from Castro Street and leased the former Junction Garage on the Highway.

Steffen & Williams, Palo Alto, Cal., have opened Studebaker and Cadillac salesrooms and service station at 247 High Street.

- 8. F. Schomberg, Palo Alto, Cal., has purchased the garage formerly conducted by Johnson & Sund and adopted the name of City Garage.
- Chas. H. Kaar Co., San Francisco, has been incorporated by C. H. Kaar, W. F. Seel, A. R. Mires, E. M. McDaniel and C. I. Howell with a capital stock of \$100,000, to distribute the Lexington car for the entire Pacific Coast, and leased the premises formerly occupied by the Latham-Davis Co. at the corner of Van Ness Avenue and Post Street. The building is in the course of remodeling and renovation.

Daiton Brothers, San Francisco, have opened a general repair shop at 1934 Van Ness Avenue.

The Hewitt Rubber Co. of California, San Francisco, of which Charles W. Harris is president and whose headquarters are at 1210 Claus Spreckels Building, San Francisco, has appointed the following dealers in California for Hewitt Tires: J. B. Wood Tire Co., 927 South Hill Street, Los Angeles for southern California; General Auto Supply Co. of Oakland for northern California and Nevada.

- 8. H. Chase, Oakland, Cal., formerly connected with the Studebaker corporation in San Francisco, has entered into partnership with George Cadwalader, the firm name being Cadwalader-Chase Co., instead of Logan-Cadwalader. The firm will handle the Velie line exclusively and recently appointed the following as Velie dealers in their territory: Rice & Forrest. Sacramento; D. & L. Garage, Stockton; M. M. Shelley, Modesto. and A. W. Rawling Co.
- N. A. Getchell, San Francisco, has opened a general repair shop and a sub-agency for used cars at 441 First Avenue.
- W. S. Berry and R. F. Rodgers, San Francisco, have become the owners of the Point Lobos Garage at 4808-18 Geary Street.

Van Winkle Rubber Works, San Francisco, have become successors to The Hooper McElhiney Rubber Works at 3188 Mission Street.

Braas Brothers, San Francisco, have opened a vulcanizing and retreading shop at 296 Valencia Street.

J. Bercovich, San Francisco, has purchased the interests of his partners and become sole owner of the tire and accessory shop of Bercovich Bros., 231 Valencia Street.

Oliver Tire & Rubber Co., Oakland, Cal., has opened a branch at 468 Golden Gate Avenue, San Francisco.

Blangy & Bernthal have been appointed Ford dealers at Palo Alto, Cal.

Voltage Battery Co., Oakland, Cal., has been opened as a battery sales and service station at 2019 Broadway by Fred C. Pierson and Edward McDougall, under the name of Voltage Battery Co.

G. H. Wild, San Francisco, has become the owner of the Exposition Tire & Repair Co. at 590 Valencia Street.

Western Auto Supply Agency, San Francisco, has opened a branch at 283-295 Golden Gate Avenue, with H. H. McCalla as manager.

Benjamin Butier, San Francisco, has established an oxy-acetylene welding shop at 1445 Valencia Street.

- P. Nass, San Francisco, has become sole owner of the Cut Rate Tire Shop at 435 Golden Gate Avenue and adopted the name of Nass' Vulcanizing Works.
- C. D. Wilson, San Francisco, has purchased an interest in Hollis' Tire shop at 497 Golden Gate Avenue and the firm is known as Hollis & Wilson.

Wood's Battery Service Station, San Francisco, has been opened at 4622 Geary Street.

San Francisco Auto Wrecking & Supply Co., San Francisco, has been opened by Maurice Lerer and Joseph Eppstein at 1554 Market Street.

J. Addison and T. Marilli, San Francisco, have purchased from the heirs of George Fergodo, the machine and repair shop at 3549 Seventeenth Street, for many years conducted as the Fergodo Machine Shop.

American Auto Market, San Francisco, dealing in used cars has been established by R. N. Smith at 826 Valencia Street.

G. F. Owen and Will E. Trazanga, San Francisco, have purchased the business of the A. & A. Co., at 917 Van Ness Avenue, and will handle accessories as well as tires.

Essex Garage, San Francisco, has been acquired by Albert B. Pennington and Geo. W. Pennington at 818-835 Ellis Street.

Sunset Garage, Rodondo Beach, Cal., has recently been acquired by Harry Archer and R. B. Ford.

NORTHWEST

Sears Automobile Co., Des Moines, Ia., will distribute Jordan cars in that territory.

Peterson-Hayward Motor Co., Omaha, Neb., has been appointed Jordan distributer here.

The Square Deal Auto Co., Council Bluffs, Ia., has been closed, the owners retiring from the garage field.

The Jewell Auto Co., Council Bluffs, Ia., has succeeded the Jewell Burham Auto Co., as Dodge dealer. G. W. Jewell is manager.

The MacRae-Owen Motor Co., Council Bluffs, Ia., has opened a sales and service station at 111 West Broadway, for the sale of Liberty, Essex and Hudson cars.

Fred Dahl, Council Bluffs, Ia., has opened a U. S. L. battery station at 622 West Broadway.

The Manning Storage Battery Co., Council Bluffs, Ia., has moved into larger quarters. Everett Stewart is the new manager.

The Omaha-Western Motor Car Co., Omaha, Neb., has opened a sales and service station at Farnam and Twenty-ninth Streets. The Chalmers, Essex and Maxwell will be handled.

The lowa Storage Battery Co., Des Moines, has appointed F. S. Naiden as its new mapager.

The Liberty Garage, Des Moines, Ia., has been purchased by T. McGreevey, who expects to enlarge its shop equipment.

The Wyckoff Auto Sales Co., Sloux City. Ia., is building a new service station and garage at Fifth and Douglass streets.

J. A. Tyrhoim & Co., inc., New Richland. Minn., have purchased the garage and Fordson agency of the Hellie Company at Albert Lea., Minn. The branch will be under the management of W. P. Tyrholm. The company now has garages and agencies at New Richland, Albert Lea, Waseca and Waldorf. all in Minnesota.

Barney Choquette and Jacob Williamson, Baudette, Minn., leased the repair shop of the Baudette Auto Co. from M. E. Murray and will operate it.

The Tyler Auto & Machine Co., Tyler. Minn., has been incorporated by C. C. Sorenson, N. D. Pederson and J. D. Rix for \$50,000.

Herrick & Herrick, Hammond, Minn., has bought the J. J. Corden Garage and will conduct a general garage business.

Bianga & Spranger, Sauk Rapids, Minn. have sold their garage business to William Bursch and E. D. Levendowski, former residents, who will conduct the business.

Arthur Wenberg, Dunnell, Minn., bought the S. A. Cooper Garage for \$7,000 and will continue the business.

J. J. Murphy, Grand Rapids, Minn., has bought the James Eide interest in Motor Inn and will expand the business by adding an adjoining room for sales and storage parts and accessories.

Frank Stewart, Mankato, Minn., has bought Herman Pomadt's interest in the Overland Garage of Grass & Pomadt. The firm will be Grass & Stewart.

Kreitinger Co., inc., Springfield, Minn.. capitalized at \$50,000 will deal in automobiles and accessories. Incorporators are Louis Kreitinger, president and H. W. Dahmer. secretary.

Paul Poison, Hammond, Minn., has bought the Goertz Garage and taken possession for operation.

Powers & Freer, Heron Lake, Minn.. bought the Heron Lake Garage from Rudolph Kuhnau.

Meivin Swanson, Leonard, N. D., has bought out his partner, Nels Nelson, in the Leonard Motor Car Co., and will continue alone.

The Red River Motor Co., Fargo, N. D.. has been moved by Manager Roy Hamilton to Front and Second Streets, handling the Velle and the Denby truck.

The B. M. Calkins Motor Co., Fargo, N. D., has been bought by Walter Harrison. formerly manager for the Fargo Motor Sales Co.

The Mid-West Automobile Insurance Co., Fargo, N. D., has been incorporated with a capital stock of \$100,000, to insure motor cars.

The Fred Hart Garage, Halliday, N. D., has been sold to B. A. Card of Manning. N. D., and P. J. Forward.

The Citizens Motor Co., Litchville, N. D., newly organized, has bought and taken charge of the Knut Tvedt Garage.

J. MacArthur, Otto Smith and George Johnson, Mandan, N. D., three former Canadian soldiers, have opened an automobile repair and paint shop in the former Tobin Garage on First Street.



The Baker Tractor Co., Fargo, N. D., Roy Baker and J. R. Baker, partners, will represent the Cleveland Tractor Co., in North Dakota and the western counties of Minnesota to sell the Cletrac tank-type tractor. J. R. Baker is manager at 419 N. P. Avenue.

F. B. Seawright, Fargo, N. D., is manager for a factory branch opened by the Illinois Tractor Co., at 806 N. P. Avenue. George Seawright of Lafayette, Ind., a son, will be associated with the branch and H. H. Hall of Bloomington, Ill., will be road man. A sub-branch is opened at Aberdeen, S. D.

The Spaulding Tractor Co., Fargo, N. D., has bought an entire block of land at First Avenue N. and Sixteenth Street, on which to erect a \$60,000 administration building and warehouses. The site is 280 x 300. The company is at 512 Front Street, where it distributes Fordson tractors.

The Piper & Ling Motor Sales Co., Fargo, N. D., has been formed and will sell the Crow-Elkhart cars in five adjoining counties in the State and two in Minnesota.

The Northern Motor Sales Co., Fargo, N. D., has been formed by G. Gratias and E. Breyer, who will sell Diamond T trucks in Fargo territory.

John Blodgett, Lead, S. D., has bought out his partners in the Black Hills Overland Co., Roy Shepard and Bart Klingler.

Feiler & Neises of Howard Motor Sales Co., Howard, S. D., bought the repair shop of Samuel Barger.

Benjamin Big, Claire City, S. D., has rented the Claire City Garage from Balvin Bros.

W. A. Hill, Beresford, S. D., has taken into partnership in the Beresford Overland Co. his son, Fred L. Hill.

F. S. Nadine has been appointed manager of the Iowa Storage Battery Co. main plant at Des Moines, Iowa. He was formerly with main office of the Prestolite Co. at Indianapolis.

H. L. Boyd has been appointed manager of the Gary Motor Sales Co., which will distribute Gary trucks in the Des Moines territory. An office and salesroom has been opened at 517 Mulberry Street.

James Cole, Ramona, S. D., has bought the Charles Sherman Garage business building and supplies.

George Brown, Brookings, S. D., sold his garage to Farrington, Vessey & Conover of Wessington Springs, S. D.

Canistota Auto Co., Montrose, S. D., has taken over the Ford Auto Co. business in that territory.

The Herried Auto Co., Herried, S. D., has been incorporated at \$25,000 to do an automobile business, by C. J. Bieber and associates.

The Standard Tire Co., Aberdeen, S. D., has been incorporated at \$50,000 by W. G. Matthew and others.

Bert Donahoe, Roy and Dan Donahoe, Sioux Falls, S. D., have formed a partnership as Donahoe Bros. to go into the garage business at 112 North Main Ave.

Finkins & Baidwin, Spearfish, S. D., have bought the R. F. Mamman garage business, known as the Queen City Garage, and will continue to operate, moving to the Mathews building.

J. T. Cole, Ramona, S. D., has bought and taken possession of the garage of C. W. Sherman, who formerly operated it.

Haider Bros., Watertown, S. D., have bought the Harper building garage and will continue the business.

The Motor Sales & Finance Corporation, Sioux Falls, S. D., has opened at 321 South Phillips Avenue, O. A. Kruse, manager, to introduce the Kalamazoo motor truck, in the Dakotas, Minnesota, Iowa and Nebras-ka.

Keeney & Lounsberry, Indianola, Iowa, have bought the Prince Garage.

Waiter Sponseller, Remsen, Iowa, has sold his repair business to Albert Simonensa.

John Mangold, Carroll, Iowa, is closing out business and will leave Carroll.

Centerville Auto Co., Centerville, Iowa, has been bought by Otis Duree, Grant Everman, Delmar Massman and George Pierson, employees of the company.

Ed. Feight, Chariton, Iowa, has bought the Lemley Auto Co. from T. F. Lemley.

The Carl Kurtz Garage, Sac City, Iowa, has been sold to Ed. and Charles A. Long.

C. E. Freeborn, Dayton, Iowa, has bought the garage at Boxholm, Iowa, from N. E.

Butler Brothers, Dallas Center, Iowa, have bought the Reckseen Auto Co., Madrid, Iowa.

Roay Timmons, Manchester, Iowa, has retired from the Manchester Auto Co. and his place in the firm has been taken by Austin Henyon, of Des Moines.

The Lahann Garage, Correctionville, Iowa, has been taken over by Earl Smith and Wm. Boettger.

Harry Mason, Reinbeck, Iowa, has sold his garage to Emil Ohrt.

John Diehiman, Pella, Iowa, has sold his garage to Art Verrips and Simon Steenheck.

Harry Maioney, Spencer, Iowa, has bought the Spencer Vulcanizing Co.

Chester Sturgill, Colfax, Iowa, has opened a vulcanizing and tire sales agency at 13 Front Street.

The Hoggman Scripps-Booth Co., Cedar Rapids, Ia., has been formed by E. W. Hoffman and J. A. Wicke to sell the Scripps-Booth in this territory. A salesroom and service station will be opened at 114-116 North First Avenue West.

John Petrzeika, Cedar Rapids, Ia., has opened a tire sales room and repair shop on First Avenue.

The Apperson Nunemaker Co., Cedar Rapids, Ia., is building a new garage and sales-room on First Avenue West.

The W. H. Morse Co., Cedar Rapids, Ia., Hudson and Essex dealers, will move into new quarters on the East Side soon.

The Sinciair Refining Co. has bought the

service filling stations in Minneapolis and Wayzata of the Van Tilburg Oil Co., but does not include the latter's main station and plant at University and Twenty-fifth Avenues S.E. The latter company will operate as before.

F. S. Woolston, Billings, Mont., will distribute Jordan cars.

MIDDLE WEST

C. F. Erickson, Rockford, Ill., has opened a new garage and sales agency at 1011 Fifth Avenue, to be known as the "Kishwaukee."

Clarence A. Triphagen, manager for the Reo factory branch at Lansing, Mich., has been made manager of the factory branch at Detroit. W. Carl Parker, head of the truck sales promotion department, succeeds Mr. Triphagen as manager of the Lansing branch, effective Aug. 1. The salesrooms will be at 975-977 Woodward Avenue, and the service station at 38 West Warren Avenue. The branch will employ 50 men.

The L. J. Malone Motor Car Co., Bloomington, Ill., has been purchased by E. D. Sill, who was assistant manager and who will continue to distribute Dodge Bros. cars and trucks in the central Illinois territory. L. J. Malone will open an agency in Peoria, Ill., in partnership with his two brothers and will distribute the Chevrolet car.

Oscar Rick, Saybrook, Iil., has opened a new garage at 305 Center Street and will do a general repair and storage business.

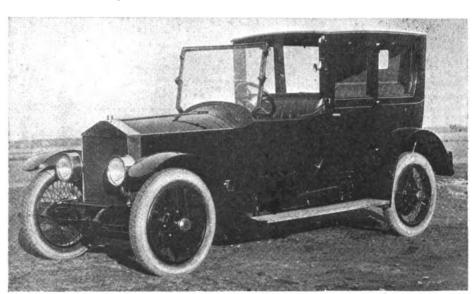
The J. C. Spangler Motor Car & implement Co., Bloomington, Ill., has been organized and has opened a sales agency at the corner of East and Douglas streets. The company will be distributers for the Chalmers and Maxwell passenger cars and the Keck-Gonnerman tractor.

Arthur S. Widrig, Pontiac, Mich., is building a double garage 120 x 140 feet.

The Illinois Motor Co., 122 South Michigan Avenue, Chicago, has been incorporated with capital stock of \$250,000. The company will handle various makes of passenger cars and other power vehicles. Incorporators are W. L. Morrison, H. C. Kinney, and L. W. Hartjes.

Franklin-Ritt Co., Marshfield, Wis., is the new name of the Wisconsin Motor & Machinery Co., Franklin distributer in central and northern Wisconsin.

Wisconsin Motor Car Co., Milwaukee, Wis., has been appointed Jordan distributer for that territory.



The New Brougham of the Phianna Motors Co. of Long Island City, N. Y.
This model sells for \$3,600

Crookston, Minn.

EAST

C. J. King, McDonald, Pa., has asked bids for the erection of a new garage.

Frank M. Kraemer, Cleveland, O., will build a 2-story repair shop here on Dalphin Street.

Lepley-Taylor Tire Co., Mt. Vernon, O., has been formed by Guy Taylor and Bruce Lepley and has purchased the Columbus United Tire Co. The new company will occupy the quarters that formerly housed the Lepley Tire and Vulcanizing Co.

Airland Motor Co., Greensburg, Pa., has opened its new garage and salesroom, from which will be sold the National, Nash and Maxwell cars.

J. R. Hawks, Albany, N. Y., of 278 Central Avenue, has the agency for the Moon Light Six.

Francis McCartney, Wilmington, Del., has established a service station and an accessory business at Thirty-first and Market streets.

The Kiei Motor Co., Wilmington, Del., has been incorporated and will construct a sales and service station at Eleventh and Tatnall streets, to cost \$100,000.

Willard and Albert Ryan, Wilmington, Del., have formed a partnership under the name of Ryan Brothers and have opened a motor accessory business at Twelfth and Washington streets.

The Kiein Motor Car Co., Allentown, Pa., has taken over the Chalmers line.

The Bonta Motor Car Co., Wilmington, O., is constructing an addition to the garage on Sugartree Street.

The Sharon Motor Car Co., Sharon, Pa., will occupy soon a new garage at Pitt and Shenango streets.

W. F. Howes & Co., Newark, N. J., have leased large quarters at 232 Central Avenue.

SOUTHWEST

The Turner Garage, Clifton, Kan., is nearly completed. Carl Worley will occupy the building and conduct the garage and repair shop. A. D. Bray, agent for Dodge Bros., will use a portion of the front for sales and display room.

- S. P. Monk, Green Leaf, Kan., has sold the garage building occupied by the Green Leaf Motor Co. to John V. Koppes of Barnes. Thos. Kamp of Barnes becomes the manager here and Mr. Monk will be retained as salesman.
- H. H. Bundy, Cottonwood Falls, Kan., will open a tire repair and vulcanizing shop.

Goodyear Tire & Rubber Co., Little Rock, Ark., has opened a branch here with W. H. Ector, manager.

R. C. Cook, Plattsburg, Mo., has opened his salesroom and service station in the new building.

Brandon-Osbourn Tire Co., Peabody, Kan., has opened a new store, to be run in connection with the Dodge Brothers agency.

Carter King, Ozark, Ark., has opened a vulcanizing shop.

Lyons & Conion, Kansas City, Mo., will distribute Armstrong trucks in this territory. They have a new building under construction on Mcgee Street.

G. T. O'Maley, Kansas City, Mo., has just taken over a new addition to be used as a wholesale accessory and garage equipment department.

Joseph T. Byrne and J. Lawrence Cashen, Kansas City, Mo., have organized the Cashen-Byrne Tire Co., with headquarters at 1707 Grand Avenue, and will sell Victor The Franklin Motor Co., Kansas City, Mo., is going to build a two-story building 100 x 115 ft.

Reynolds & Voss, Knoxville, Tenn., Overland and Bulck agents, are building a new garage, 80 x 120, and expect to move in by September 1. They have added the Samson tractor to their lines.

Wake & Dixon, Knoxville, Tenn., Prestolite service station and garage, will move to new quarters next month, doubling their capacity.

Nelson and Co., Knoxville, Tenn., have taken on the Maxwell line and expect to move into larger quarters in the near future.

Reo & Nash Sales Agency, Knoxville, Tenn., is building a new garage and service station

Lon Huffstuller has been appointed Willard service station manager in Knoxville,

The Perry-Bannell Tire Co., El Paso, Texas, has been opened for business. E. Gordon Perry, president of the Lone Star Motor Co. and F. M. Bannell, president and manager of the El Paso Overland Co., are the proprietors.

O. J. Moria, Bartlesville, Okla., has leased the new brick 25 x 90 ft. building which is being erected by J. L. Overlees, for an automobile salesroom. He has the agency for the Stevens car.

Waco Airiess Tire Co., Waco, Texas, has opened a new store at 123 North Fourth Street.

Giover Johns Auto Co., Alice, Texas, is making an addition to its present building practically doubling the floor space.

The Noyes-Montgomery Motor Co., Hutchinson, Kan., agents for the Oakland, Premier and International truck, have moved into their new quarters.

The Western Auto Supply Co., Kansas City Mo., is moving into its new location on Grand Avenue, 120 x 50 ft., with a floor space of 25,000 sq. ft. The lower floor is to be used.

The Carroll Motor Co., Athens, Texas, has taken the agency for the Buick in Henderson county.

Edwards Auto Supply Co., San Antonio, Tex., has been opened by Edward and H. Mabrito on West Commerce Street.

NEW GARAGES

Service Auto Co., 50 x 120.....Antigo, Wis. Ellingson & Stark, add. 66 x 132,

Manchester, Iowa
Ben Johnson......Davenport, Iowa
Ambrose Warner......Stockport, Iowa
The Garner Auto Co. (addition)

James E. Drummond (66x85)

221 E. Milwaukee St., Janesville, Wis. Burns Brewer (34x88), Park Hotel, Janesville, Wis.

W. E. Lively......Brainerd, Minn. Moose Lake Motor Co.... Moose Lake, Minn. Floyd Walter (vulcanizer).....Foley, Minn. Flynn, Bjerkan & Nelson.....Osakis, Minn. Sebeka Garage......Sebeka, Minn. E. C. Wordin......Foley, Minn. O. Samuelson......West Union, Minn E. W. Minske.....Morristown, Minn. Overland-Perrin Co......Mankato, Minn. H. W. Riek......Cook, Minn. Red River Rubber Co.... Crookston, Minn. Minn. Haug Bros......Watson, A. W. Ohland......Biscay, Minn. Gilbertson & Hall......Peterson, Minn. J. H. Posz.....Sanborn, Minn. Charles Hake.....Northfield, C. E. Clough......Carlton, Minn. O. R. May.....Paynesville, Minn. Tyler Auto & Machine Co..... Tyler, Minn. Wolfram Bros......Jordan, Minn. Minn Wise Bros......Huntley, Albert Tryholm......Albert Lea, Minn. Moore Auto Co.... East Grand Forks, Minn. Wenger & Wilson......Duluth, Minn. Trucotte Bros. (Sixth and Oak Streets) Brainerd, Minn.

 Peterson & Wiley
 Huron, S. D.

 John P. Bleeg
 Sloux Falls, S. D.

 H. B. Darling
 Mobridge, S. D.

 Maurseth Auto Co
 Veblen, S. D.

 E. S. Hartenstein
 Spencer, S. D.

 Mattson & Hallstrom
 Webster, S. D.

 Anderson Bros
 Wilmot, S. D.

 C. O. Dustrude
 Wood, S. D.

 May Sanders
 Sloux Falls, S. D.

 Pioneer Garage Co
 (75x100, 3 stories)

 Sioux Falls, S. D.

E. H. Bushnell......Newell, S. D. D. S. Wyckoff......Brookings, S. D. L. M. & J. S. Mattecheck.... Waubay, S. D. Burt Auto Co......Burt, N. D. Olson & Hunter.....Ryder, N. D. Dahlund Bros. Esmond, N. D. Lewis Auto Co.....Beach, N. D. Fred Reimer......Gascoygne, N. D. Moga & Wahl......Scranton, N. D. Barrickman & Warnken. Devils Lake, N. D. Kiefer Auto Co......Fargo, N. D. Chapman & Retlan.....Fargo, N. D. Olson Bros. & Otto......Carrington, N. D. Dahl Motor Co. (75x130, 2 stories) Wahpeton, N. D.

John Rorvik Hardware Co....Fairdale, N. D. Henry Juntunon..... Rolla, N. D. MacDonald Bros......Milton, N. D. John Edison..... Milnor, N. D. G. B. Smith......Valley City, N. D. Alexander Motor Sales Co. Alexander, N. D. Williston Motor Sales Co...Williston, N. D. Holliday & Leifson......Barthold, N. D. Tyrrel & Kunze......Wibaux, Mont. G. H. Whitefield.....Livingston, Mont. Morris & Fleishman.....Anaconda, Mont. Nels Pearson......Anaconda, Mont. Auto Tire & Retreading Works Miles City, Mont. Davis & McCourt..... ...Denton, Mont. F R. Jackle......Manhattan, Mont.

Billings, Mont.

Digitized by Google

J. E. Kurts Tire & Rubber Co.

RENTS FORDS ON CONTRACT

Cars Are Hired by the Hour, Day or Week —Rentor Must Prove Ability to Drive

THE Kissel-Skiles Jitney Co., Kansas City, is introducing to that city the "Ford for Hire," which has been found in several communities of the Southwest, notably in the towns where soldiers or civilians during the past few years have wanted to use cars for one or two days. The Kansas City company has 10 Ford touring cars now in service and more will be delivered within a few days. The cars are rented by the hour, day or week. The regular charge is 12 cents a mile, the renter paying for gasoline and oil used. A minimum charge of 60 cents an hour is made, however, to cover the possibility that a renter might leave the meter quiet for a large share of the period during which he had possession of the car. Careful investigation is made of the character of the applicant, his responsibility, and his ability to drive a Ford. Trucks may also be rented. When a car is rented, the renter signs a contract, containing certain promises and statements as to his assuming responsibility.

Kissel is a Kansas City insurance man; Skiles ws formerly with the Ford Motor Co. at Omaha, where he observed the operation of a similar service there.

The contract signed by each renter is as follows:

AUTO RENTAL CONTRACT with

KISSEL-SKILES JITNEY Co., Kansas City, Mo

Date.....

In consideration of obtaining rental service from your company, I covenant and agree that:

- 3. I will not use any car rented me by your company in violation of any City Ordnance or State or National law, and agree to stand responsible for any violation thereof.
- 4. I will not sublet or loan said car to any third person.
- 5. I will return said car to your company on the same day as rented unless special permission to keep said car for a longer period is obtained by me at time of rental and in case of failure to return said car within the specified period, I hereby agree to pay a rental charge at double the regular rates.
- 6. I will return said car in as good condition as when rented, ordinary wear and tear excepted, and will not load said car in excess of one thousand pounds.
- 7. If repairs become necessary while said car is in my possession, I will communicate with your company promptly and follow implicitly all instructions given.

 8. I will hold the Kissel-Skiles Jitney
- 8. I will hold the Kissel-Skiles Jitney Company harmless against all damages no matter how arising or occasioned, whether to persons or property, growing out of my rental and use of said car, and will pay for replacements and repairs at standard Ford Motor Company prices.
- 9. I accept said car after inspection agreeing that all parts and accessories are in good condition and bear a secret mark and agreethat when returned if any of said parts of accessories have been removed, lost or stolen

I will pay standard Ford Motor Company's prices for all replacements.

10. In addition to schedule of rates shown hereon, I agree to pay for all gasoline and oil used by me.

11. I am employed by or engaged in busi-

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No	My residence addres	s i
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Seeks Chicago-Omaha Air Line

DAVENPORT, IOWA, July 26—An aerial mail line between Chicago and Omaha, with one relay stop here and another at Des Moines, is being sought by R. E. Beedee, automobile dealer, who is one of a committee appointed by the Rotary Club to assist in working out such a plan. Beedee has written to postal authorities at Washington outlining the plan and is now endeavoring to obtain the necessary landing site here. This line, with the stops indicated, would serve three large military posts, the Rock Island arsenal here, Camp Dodge at Des Moines and the Army Balloon School at Omaha.

Dealers Classed as Chauffeurs

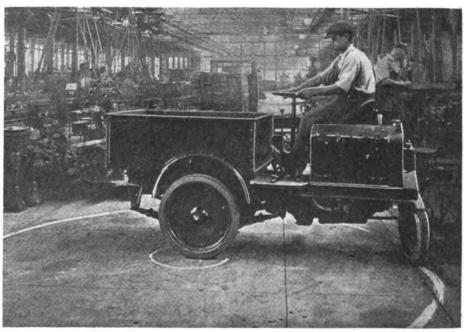
BOSTON, July 26—As a result of a court decision by Judge Heady at Springfield some time ago, dealers, demonstrators and salesmen who formerly drove motor cars under an operator's license have had to change over to chaufeurs' cards. In his decision the judge held that any person who received pay for operating could not drive with an operator's license.

Wilmington Needs Garages

WILMINGTON, DEL., July 25—Wilmington is facing the problem of sufficient automobile housing. It is estimated that space for 1000 more cars are needed, the lack of which is affecting the trade. Therefore, local motor men are urging the construction of more garages.

New Lansing Sales Building

LANSING, MICH, July 25—The Lansing Buick Co. is asking for bids on the construction of a new sales building and garage.



The Clark Trucktractor is a dual-purpose machine designed primarily for hauling heavy material in factories. It has a carrying capacity of 1½ tons and possesses ample power to haul heavily loaded trailers in addition

Two Birds with One Stone

Dig Up Truck Prospects for the Salesman to Work on, Thereby Saving the Salesman's Time for Real Sales Work—Train Young Men to Become Truck Salesmen

AVE you ever pondered over the problem of getting greater efficiency out of your sales force and, also, where to get new recruits for your sales work?

Probably you have, for those are two big problems in the automotive field and especially in the rapidly developing field of truck sales.

One large concern, engaged in the retailing of trucks, answered the problem by employing business scouts whose entire time is spent in finding companies that should be purchasers of motor trucks. This plan—

Uses Young Men

1—Develops many new and unexpected prospects.

2—Keeps the salesman continually at work on sales. He does not have to search out prospects.

3.—Gives the salesman a working knowledge of the prospect's business for making his first call.

4—Provides a training school for new salesmen, the graduates of which should be expert "contract closers." The business scout idea is one worked out by the R. E. Taylor Corp., the New York dealer in the Signal truck. Briefly, it divides the company's retail territory—Greater New York—into ten districts, in each of which is placed a wide-awake young man 18 to 20 years old who makes practically a house-to-house canvass of his territory, taking it street by street, in a business census of the firms that are possible truck users. The reports are then turned into the sales department, which acts upon them as it sees fit.

Makes Detailed Report

The Taylor company has used the plan for some years, first as dealers in New York for the Garford truck and now with its newly-organized business as distributer of the Signal. Fifteen to twenty-five reports are turned in every day by each scout, who is called upon to make as complete a report as possible, particularly concerning the transportation equipment then in use by the prospect. The gathering of this requires careful work and is done as a part of the labors of the sales department. Frequently the knowledge is ascertained from employees of the prospect and seldom does the scout reveal his identity. Mechanics or drivers, it has been found, generally will supply the information required, the only difficulty being the use of the proper tact to interview them. But each scout is carefully instructed in advance how he shall operate and his wits are sharpened by the expectation that he soon will become a member of the sales force, with the greatly increased salary or commissions. Several times, it was stated, the scouts have practically closed contracts, although the company rules prevent them from completing this, as salesmen must do it.

Salesman Follows the Scout

But the work of scouts and salesmen is so closely linked in the Taylor corporation that the two can only be considered together. The scout brings in the prospect's name when he visits the sales office each night, or, if he has reason to believe the lead is a "live" one, he telephones it in. The scout territory or zone is similar to that of a salesman, the plan being one district, one salesman, one zone. The prospect's name and the report upon him is turned over to the sales manager, who, after careful consideration, gives it to the district salesman, with his suggestions and advice. The salesman must make his first call upon the prospect at once, turning in then to the sales manager

		CORPORATION DILLOW-UP REPORT	
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ADDRESS		DATE	
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Mars-B. au L. LEAVE	NE, L. INTERESTED. G. SIVE INSPECTIO	N. N. NOT INTERESTED. A. ADV DCP	F MAIL LITERATURE.

	SCOUT I		
Territory No. 10 Name Smith	Glass Co.	Den July 16.	191 <i>9</i>
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Dogs he own tracks	*	d are they	
ls he interested in the part	need one trade	when one on two wes	ks
Not used at present	ما ماست	- Ha - Ha - Square - Every	

Two of the reports of the Taylor corporation. The one to the right is the scout report made out as prospects are found by these busy little pluggers. Each scout turns in from fifteen to twenty each night, filled out as carefully as he has been able to obtain the information. They then go to the sales manager and salesmen who determine upon which ones to press for immediate business. The blank on the left is for the salesman's report on calls to prospects, after the first visit

the report shown herewith, marked Salesman's Daily Report. It is similar to but more complete than the original report made by the scout. Its chief advantage is in the fact of increasing the written information concerning the prospect. The third form shown herewith is intended for each additional interview, of which there must be at least one every thirty days until the prospect is closed.

The salesman and scout work in close co-operation, supplementing the written report by personal conversation. Occasionally, the scout has seen demonstrations under way by competing concerns; a quick telephone call, if warranted, then has brought the Taylor salesman on the jump in an effort to get his share of the business that may be falling. The salesman, at times, has been able to let the scout handle some details of completing the sale, as mentioned before, or he has been able to use the scout in checking up maintenance of trucks already sold. All of this has resulted in a close unity that the corporation believes has brought about desirable results.

The salesman generally has an agreement concerning commissions with the scout. This is a matter considered outside the realm of the sales manager and is considered "private" between the scout and the salesman. The company pays the scouts from \$15 to \$18 a week. the commission, of course, merely urging him on to further work in behalf of his territory and the salesman who will profit by any sales made therein. Recently a scout, working in the Bronx district, called up at 11:50 o'clock that he had found a possible buyer and believed that quick action was necessary to get after him. Just at noon the district salesman telephoned the office for instructions and was given the "tip." Before 1 o'clock he was busy making the sale. Another case recently was one in which the scout received 50 per cent of the commission on the sale of a 31/2-ton

The scouts are recruited in many ways. One is a former office boy who showed ability, another is the nephew of one of the salesmen, while a third is a salesman's son. No especial qualifications are considered necessary except alertness and intelligence and it is not deemed imperative that he have a knowledge of motors.

"The scouts are a training school for salesmen," E. P. Risbrough, the company floor manager and assistant to Howard Walton, the sales manager, explained. "They learn the truck and the transportation problems involved during their apprenticeship and in a short time may become regular order takers. We have what is called the junior salesmen and, at one time, during our sale of the Garford truck, 60 per cent of our entire sales force were graduates of the scout schools. One of them was the son of a salesman who had been our best man But the father soon was bested in total sales by his scout-trained son, the two being continuous business rivals.

R.	E. TAYLOR CORPORATIO	N No. 2550
Territory	Call	
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Basiness	Telephone No	
Reting	Best Time	***************************************
Name and Title of who to see		
Self-Appointed Call	Call by Appointment	***************************************
Interested is		
No. of Horses used	Trucks	
Average Distance Aver	age LoadStops	
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Competitors	Body Style	Period.

This is the detailed blank filled out after the salesman's first call. It enlarges the knowledge already gained by the scout in his opening canvass

Rude Employees Have Play Day

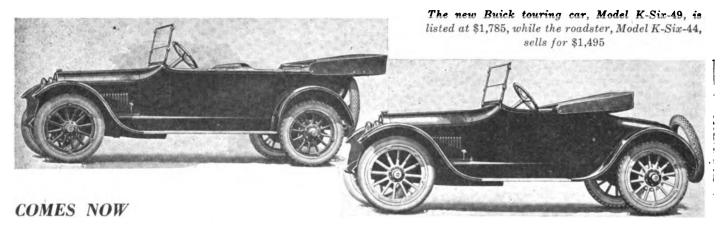
DES MOINES, IOWA, July 25—The Rude Auto Co., operating salesrooms at Cedar Rapids, Marshaltown, Perry, Nevada, Belle Plaine and Maxwell, "closed up shop" in all the branches one day this week and took the day off. Three hundred employees of the company went to Maxwell, Iowa, and spent the day in a

picnic. Two ball games between four of the towns furnished part of the sport and a tug of war between the east branches and the west branches was another diversion. There were swimming and boating for those who desired them and a band furnished music all day. The affair was brought to a close with a dance in the evening.

Automobile "Landboat" on Tour Through West



An automobile salesman's optimism in believing that "something different" could be done, and his initiative in getting it done in a hurry made possible the camping-touring trip of Samuel F. Meyerson, retired St. Louis publisher, who is now roughing it through the western states in the "traveling home" shown above. Meyerson, ambitious to make the trip, had vague ideas of the sort of vehicle he wanted. C. E. Clenin, a Packard salesman, took the scheme to Allan H. Clark, who designed a special body which was built by the Vehicle Top & Supply Co. for a Packard 2-ion truck. The cab is equipped with three berths which fold out of sight by day, with a tent canopy reaching to the ground, and with locker, cooking and other conveniences tucked away in various recesses. Transformation of the truck was completed in seventeen working days



THE 1920 BUICK

Six Models Are Offered in the New Line—Heavier and More Durable Construction the Feature

NUMBER of minor refinements, none of which are fundamental, have been made in the Buick line for 1920. The same prices prevail as for 1919, with the exception of the coupé and sedan. Six body types will be marketed, these ranging from \$1,495 for the touring and roadster up to \$2,695 for the seven-passenger sedan.

The engine remains the same overhead valve, 3% by 4½ unit, with the exception of four minor changes. The oil well wing plug has been removed, as it filled no useful purpose. The material of the oil pump drive gear has been changed from cold rolled steel to die-cast bronze, which permits the use of a one-piece steel cone shaft, which is of a more sturdy construction than the two-piece built-up shaft. The fan spider and bla les are made of heavier materials to prevent bending and the fan belt has been slightly altered.

The most important change on the chassis is a flatter spring suspension, which lowers the rear end of the car 1 inch and, on the heavier bodies, the springs are made stiffer to prevent the frame from striking the bumpers when traveling over rough roads with a full load. The driving strut rods have also been lowered to prevent interference with the frame, and adjustable stops pro-

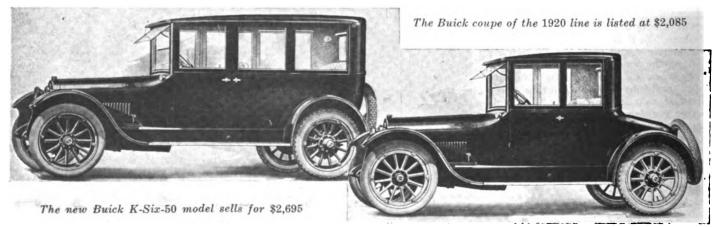
vided for regulating the turning radius. Installing the Champion speedometer has necessitated some minor alterations in the gearbox end plate. In this installation the drive is taken from a series of spiral gears attached to the rear end of the housing. In the controls there are a few improvements such as making heavier the short end of the hand brake lever to prevent bending. The steering wheel has been changed from the laminated wood type to the Pavasco, which is a die-cast rim with a tilting feature.

Other miscellaneous chassis improvements include improved oil and gasoline tank fillers and a lower hanger to accommodate the Willard battery. This battery is the Willard S-J-W-N-4. It is improved by more sediment space to prevent short circuit. The plates are burned to the post bridge at a point near the center of the plate to eliminate breakage due to vibration. Other improvements on this battery include a cover specially designed to prevent leakage at the post. The filler cap is arranged to prevent leakage of the electrolyte but allowing the escape of gas.

There are a number of minor refinements throughout the electrical equipment, other than the battery. The head lamps are a new design, the door being constructed of two pieces, allowing the nickel part to be made of brass to prevent rusting. The lamp connector is also rust-proof and the glass is fastened to the lamp body, which enables more perfect location of the lens. The lighting and ignition switch has a four-point rotor and is set at a 45 degree angle to prevent interference when manipulated for night driving. The ammeter clamp is made of wood instead of metal to prevent any possibility of short circuiting.

Most of the improvements are in the body and this does not vary so greatly in exterior appearance as in general equipment. Generally, much heavier fabric materials are used throughout. The doors on the K-44 and K-45—these being the 3-passenger roadster and 5passenger touring-have been fitted with curtain rods and the door lever escutcheon plate has been redesigned to smooth up the edges and improve appearance generally. Anti-rattling hinges are fitted on the K-44 and on the front door and the upper section on the rear door of the K-45. An improved one-piece rail with a new trim rail plate prevents the breaking out of the trim rail. A heavier and stiffer spring overcomes rattles in the hood and the Bair top holders have been re-designed to improve the fitting on the bow sockets.

On the touring coupé the roof has been lowered and the upper wood framework covered with sheet aluminum to prevent opening of the joints, cracking of seams and checking of the finish. Square doors of wider and heavier construction are now provided with an improved mechanical window adjuster, with a self-aligning sprocket from which the chain cannot slip. Anti-rattling features

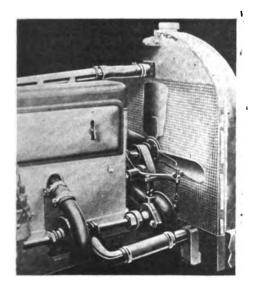


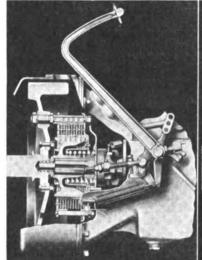
have been gone into very thoroughly, each door now being fitted with a combination dovetail and door bumper and each window with four spring anti-rattlers fastened solidly to the window frame.

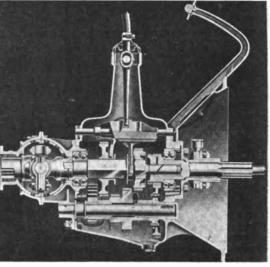
In details of finish there have been a number of refinements, including a combination knuckle door hinge of heavier design to prevent breakage, windows which can be removed without removing the trimming, lower seats and cushions with a more comfortable triangular shaped auxiliary seat, pilot side lights on the re-designed cowl, touring car design side aprons and running boards and a new windshield with an improved friction locking device on the rain vision feature. A better grade of upholstery cloth is used.

Longer Body Length

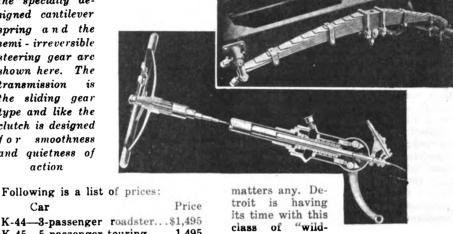
Practically the same improvements have been made on the K-47, the fivepassenger touring sedan, as on the coupé. On the K-50, or 7-passenger sedan, these improvements have also been installed and, in addition, the overall length of the body is increased by 11/2 in., this room being put in the driving compartment. The trimming of the 7passenger sedan is a high grade brown car plush, the interior fittings being decorated with silver in satin finish, in harmony with the decorative scheme.







The Buick clutch and transmission. the specially designed cantilever spring and the semi - irreversible steering gear arc shown here. The transmission the sliding gear type and like the clutch is designed for smoothness and quietness of action



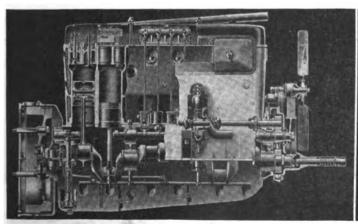
Car K-44-3-passenger roadster...\$1,495 K-45-5-passenger touring ... 1,495 K-46—Touring coupé 2,085 K-47-3-passenger touring sedan 2,255 K-49--7-passenger touring car 1,785 K-50-7-passenger sedan 2,695

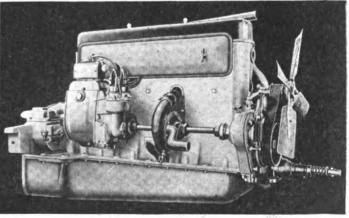
USED CAR DEALERS SELL IN DETROIT VACANT LOTS

DETROIT, July 25-The "vacant-lot salesman" is the bugaboo in the used car business in Detroit. He is probably as much in evidence in other cities as he is here and his presence is not helping

cat dealers," who, having no overhead, garage maintenance, etc., are slashing prices right and left, with the result that the legitimate trade is beginning to feel the effect of their operations. The exceptional automobile sales boom which has made it impossible to get immediate delivery on new cars, and which is causing the consumer to purchase anything, used or otherwise, in running condition, has prompted hundreds of "vacant-lot" com-

panies to start business. All it requires to go into this line of business is a few hundred dollars.





Four changes have been made in the new Buick engine, the pictures of which are above

COLUMBUS TRACTOR DEMONSTRATION OFFERS REAL PERFORMANCE TESTS

Exhibit of Power Farming Implements, with Records Compiled by State University, Gives Makers, Dealers and Farmers Real Chance to Study Machines— Object Lesson for National Demonstrators

By MOTOR WORLD STAFF CORRESPONDENT

COLUMBUS, OHIO, July 28—Following virtually on the heels of the Wichita demonstration, which after the smoke had cleared, netted no figures or data of any kind, the first day of the Ohio tractor demonstrations foreshadowed exactly the kind of tractor tests that in the future must be put on if we expect to obtain useful comparative figures that really tell a story.

At to-day's demonstration there was a genuine intermingling of farmers, tractor dealers, factory men and the men whose job it is to keep the machines maintained, namely, the oil men. The affair was not gigantic. It was small enough so that a potential buyer could watch all the machines during the day.

About twenty-four tractors plowed and fitted the land. There were private demonstrations also. The farmer had opportunity to operate a machine himself. He could ask all the questions he wanted to. Engineers from the lubricating oil companies mixed with the crowd and told of the il requirements on tractors. Many times owners of tractors, dealers nd engineers got together on various problems.

In short, demonstrations like to-day's are like a great melting pot where tractor problems and subjects can 'e thoroughly threshed out. It is safe to say that the 500 or more people, at the demonstration to-day learned more about tractors than the whole crowd at Wichita all five days.

There is no racing, the first requisite being a good job of plowing. During the time for private demonstrations the makers or dealers can show the tractors any way they like. This gives the farmers who want to see some particular machine in more detail and in the performance of numerous operations a better chance to do so. One of the best features of the Ohio demonstration is the drawbar test by the Gulley dynamometer, which shows the pull of the tractor through a considerable distance. By appropriate apparatus also the fuel consumption is accurately obtained.

Only a few machines were tested in this way to-day, but the Department of Agricultural Engineering of Ohio State University expects to have figures on all the machines entered at the conclusion of the Akron tests Aug. 12 and 13. The tractors also will be given a maximum load to determine the maximum pull. The whole equipment for these demonstrations will be carried on a train of flat cars to Middletown, Fostoria, and Akron for the other tests. This insures a complete outfit for the entire series.

New conditions will be met in the other tests and more will be accomplished by spreading the tests over a wider area.

The exhibitors at Wichita might well take a lesson and instead of wasting thousands of dollars on a demonstration that profits them nothing, put on many smaller tests over the country like today's. Where there are not so many tractors in the field at one time each machine has a proportionately larger plot to plow and this gives the farmer the op-

portunity to watch it over a long period. In the big demonstrations where sometimes four machines of the same make but different capacities are used, the plowing is over in a few minutes before the farmer can find the machines he wants to observe.

We are as yet only in the elementary grades so far as the use of tractors is concerned, and it will take decades to change our farms, farmers and farm management over the economical use of tractors, but the feeling here is general that small demonstrations and many of them put on by dealers or institutions like Ohio State University are going to lessen the educational work every year as regards power farming.

There were several new tractors here to-day, the Shelby make by the Shelby Tractor & Truck Co., Shelby, Ohio; the Bruce of Sumerfield, Ohio; the Reliable and Merry Garden auto cultivator, a garden tractor.

To-day's and to-morrow's tests are at the Johnson farm, six miles west of the city.

FEDERAL ANTI-THEFT BILL IS FRAMED

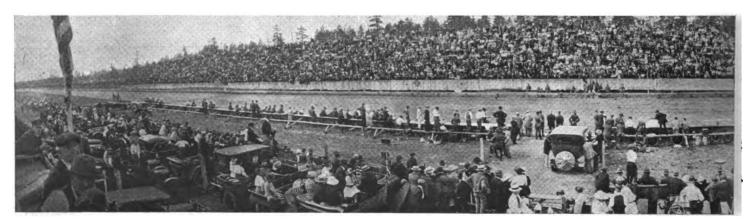
ST. LOUIS, July 28—The National Automobile Dealers' Association has been working on a bill since last January to give the Federal courts jurisdiction over motor car thefts.

The measure will be introduced shortly by Representative Cleveland Newton of Missouri. Many technicalities have been encountered in framing this bill, due to the necessity of finding a way for the Federal courts to recognize the automobile as being in interstate commerce when being driven from one state to another.

The association does not favor registration of automobiles in United States marshal's books.

Lycoming to Double Output

WILLIAMSPORT, July 26—The Lycoming Foundry & Machine Co. has plans completed and construction work started on an addition of sufficient factory space to double the present output of Lycoming motors.



The picture, taken at the Tacoma, Wash., speedway, July 4, offers graphic evidence of the popularity of the 40, 60 and 80-mile events on the plank track, in which the winners averaged better than 100 m.p.h. stands. No doubt the attendance at this and other Tacoma sweepstakes influenced the

JERSEY LAW AIMED AT CAR THIEVERY

Requires Original and Succeeding Bills of Sale with Each Change of Ownership

TRENTON, N. J., July 28—In an attempt to curb automobile thievery and disposal of stolen cars, New Jersey has passed a law requiring issuance of a manufacturer's bill of sale with every disposition of a new car, and transfer of this bill, with similar documents covering later sales, with each additional change of ownership of the vehicle. The law also prohibits sale or purchase of a motor vehicle unless it bears the manufacturer's number, unaffected by obliteration, erasure or mutilation.

The act requires that the manufacturer's number be given on the original and each succeeding bile of sale, and assignment of the original bill to each later purchaser must be before a notary public.

As an indication of the state's intention of making the law effective, a fine not to exceed \$2,000, or a maximum of two years' imprisonment, or both, is provided.

PACKARD PLANS EXPORT OF 8,000 CARS IN 1920

NEW YORK, Juy 28—Anticipating its ability within a few months to meet not only domestic but foreign demands for cars and trucks, the Packard Motor Car Co. has made plans to export 8000 motor vehicles in 1920—30 per cent of its estimated total production. Of the machines to be sent abroad, it is expected, approximately 4800 will be passenger cars and 3200 trucks.

The 1920 business is forecast on the flood of foreign orders now pouring into the Packard export department here. The company is unable, according to Fred Cardway, director of foreign sales, to meet this demand.

In preparation for next year's foreign business, the Packard has reopened its Mexico City agency, closed during the war, and has made arrangements to enter the Italian and Belgian fields. Newly appointed representatives are: Estades & Co., Mexico City; A. Chiesa, Milan, Italy, and Engelbert & Co., The Hague, for Belgium, the latter agency being extended from Holland. Fifty vehicles have been shipped to Mexico and Belgium and twenty to Italy as the first Packard after-the-war consignments.

WASHINGTON DEALERS HOLD ANNUAL MEETING

YAKIMA, WASH., July 25—The opening session of the three-day convention of the Washington Automobile Chamber of Commerce was held here to-day. W. C. Baldwin, of Tacoma, the president, called the meeting to order. Committee and officer reports were made by P. E. Sands, of Seattle, chairman of the executive committee; C. L. Moore, the retiring managing secretary, and the new managing secretary, William J. Coyle. New officers for the year then were elected.

Addresses during the remainder of the convention will be made by F. W. A. Vesper, of St. Louis, president of the National Automobile Dealers' Association; C. H. Shields, who will discuss financing; E. G. Hoffman, whose discussion will concern accounting; E. G. Hoffman, whose discussion will speak on service, and E. L. Skeel, attorney for the association. The present convention is the fifth to be held and will close July 27 with a basket picnic at the Washington state fair grounds.

Separate Truck Display at New York Show

NEW YORK, July 29—Show officials of the National Automobile Chamber of Commerce are looking for a building to house trucks separately from passenger cars and accessories in the national show here early in January The main show will be in the Grand Central Palace, and early indications point to a large array of exhibits that will show all the new and old makes.

225-MILE RACE SET FOR UNIONTOWN MEET

Revival of Contests in Northern New York Proposed— Milton Wins 10-Mile

NEW YORK, July 28—A 225-mile race, with a purse of \$14,000, was approved to-day by the A. A. A. Contest Board for the Uniontown, Pa., automobile meeting scheduled for Labor Day, Sept. 1.

It was also announced that the sweepstakes set originally for Sept. 20 at Sheepshead Bay and advanced to Sept. 13, might be put back to the later date to permit a revival of automobile racing in northern New York, at the State Fair at Syracuse on the 13th.

In an exhibition contest at Sheepshead Bay last Saturday, Tom Milton in a Duesenberg defeated Dave Lewis in a Meteor, who was second, and Gaston Chevrolet in a Frontenac, third, over the 10-mile course. Milton's time, unofficially, was 5 min. 18% sec., which would have set a new American record had it been made in an A. A. A. match.

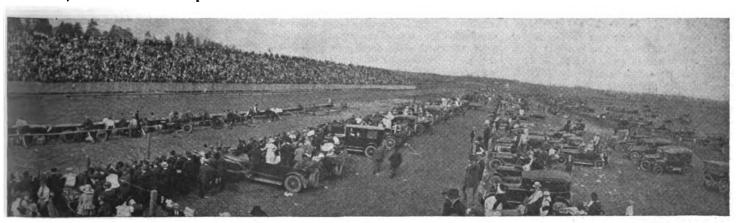
New Body Factory on the Coast

LOS ANGELES, CAL., July 10—Don Lee, Cadillac distributer for California, has organized the Don Lee Coach & Body Works and will establish one of the largest body building plants in the country.

He has purchased and will enlarge the Earl Automobile Works, said to be the largest body plant west of Detroit. J. W. Earl, who founded the business which bears his name, will continue as manager of the plant, and Harley Earl will be chief designer of the coach and body departments.

Copp Co. Moves

NEW YORK, July 28—The George W. Copp Co., producers of car equipment, has moved from 557 to 236 West 54th



automobile racing on the Pacific Coast. Fifty thousand persons, according to the speedway officials, witnessed Necessity of viewing the speeders from unroofed benches appears to have been no drawback to filling the recent decision of California promoters to build tracks at San Francisco and Los Angeles



News Letters From Trade Centers

PHILADELPHIA Sells Cars Rapidly

PHILADELPHIA, July 26—Despite a week and a half of almost continuous rain, which probably prevented many "stop-in" sales, a canvass of numerous dealers along "Automobile Row" shows conclusively that sales of passenger cars for June and July have been almost unprecedented. Several showrooms which are accustomed to have an imposing display of models have been swept clean of every sample car.

In fact, sample cars only will comprise the next shipment of more than one factory to Philadelphia, and even these are being promised with reservations. Most dealers are sold at least thirty days in advance and some two and three months. One dealer said that he had no more cars to sell and the next cars, which would not arrive until the middle or last part of August, would be samples only.

Service stations are being overworked and garages generally are jammed full nightly. There has been a building impetus in this line and options are being taken by some dealers on property to extend service and garage accommodations.

Motor trucks are selling unevenly—that is, some houses are disposing of them fairly well, while others are doing nothing with them. The sales, however, do not approach those of passenger cars. The appearance of two new trailer agencies within the last two months is a hopeful sign.

With 402,000 tags already distributed, the automobile division of the Pennsylvania Highway Department predicts that 435,000 tags will be issued before the season is over. In 1918, 371,000 tags were given out, the income from license fees being \$3,817,998. The receipts thus far this year are in excess of \$4,500,000. Up to this time last year, only 343,946 tags had been distributed.

Approval of the bill appropriating \$1,000,000 for the payment of rewards to townships of the second class for construction and improvement of township roads and bridges, has been announced by the governor.

A statement has been issued by the State Highway Department that the plan of constructing new highways in half-sections, so that half of the road can be used while the other half is being built, is neither practical nor economical because of the narrowness of Pennsylvania thoroughfares.

Edward McCurdy of the McCurdy-Brainard Co., distributer of Jordan cars for this territory, announces the appointment of E. E. Adams as general manager of the Philadelphia branch. Mr. Adams comes from Pittsburgh, where, since the start of the McCurdy-Brainard Co. in 1906, he has been sales manager. He recently returned from France.

The Stability Motors Co., 1720-1740 North Croskey Street, E. J. Berlet, president, has just been appointed distributer for Eastern Pennsylvania, New Jersey and Delaware of Westcott cars.

W. A. Hamili has been appointed assistant sales manager of the Automobile Sales Corporation, handling the Cadillac in this territory. Mr. Hamili will work with Ralph W. Cook, general manager and sales manager of the company.

The Mutual Motor Service Association dealing in tires, tubes, greases and oils has opened for business at 511 North Broad Street.

The General Auto Sales Co. has taken quarters at 513 North Broad Street.

The World Tire Co., tires and kindred lines, has opened in the Goodrich Rubber Co. building, 515 North Broad Street.

The Campbell-Niedringhaus Tire Service Co. has opened salesroom and service station at 520 North Broad Street.

NEW YORK

Deliveries Improving

NEW YORK, July 29—Arrival of the mid-summer season, with the usual slackening of sales, has given local distributers and dealers an opportunity to begin catching up on orders. They are still far from a balance, but the majority of salesrooms report an improvement over conditions a month or six weeks ago, when long lists of cars on order anywhere from four to twelve weeks were not unusual. Shipments are coming in greater quantity from many of the factories, as well, contributing to the good cheer of sales managers and their staffs.

Members of the Automobile Dealers' Association are boosting the ship-by-truck movement. Not only truck and truck accessory dealers, but men in other branches of the trade are wearing "Ship-by-Truck" buttons, and urging the movement, whenever they have an opportunity, among their clients.

Lieut. H. Lauterbach, for many years associated with the automobile industry in this territory, has been appointed district sales supervisor for New York and New Jersey by the Four Wheel Drive Auto Co., Clintonville, Wis. Lauterbach formerly was with the Chevrolet in New York.

The E. S. Partridge Co., Liberty distributer, has been selected as the first display point in the East for the new Liberty Six closed models. The new cars are now being shown to New York buyers, a majority of whom, according to indications of the past few months, are partial to closed bodies.

James J. Hunt, manager of the Reo here, announces that specimens of the new six model have been shipped from the factory at Lansing, Mich., and will soon be on display.

COLUMBUS

Has Sales Changes

COLUMBUS, OHIO, July 26—Following a connection of seven years with the Columbus Packard sales organization, in which he was sales manager for a greater part of the time, Albert E. Jones has purchased the business and plant of the Perry Auto Top Co., 214 North Fourth Street, which has been in operation about five years. Mr. Jones will make a number of changes and improvements and will incorporate the concern in the near future

The Taylor-Armstrong Motor Co., Central Ohio distributer for the Wescott, has leased the Seneca Garage at 372 East Broad Street, from its owner, E. M. Schonborn. It will be the service station for Wescott cars.

The Lawwell & McLeish Co., agent for Ford cars, has leased a new salesroom and garage at Fourth and Elm Streets. It is expected to occupy the new building in several months.

The Kelper Auto Exchange is the new name for the Elcar Co., located at Front and Elm Streets. The company will act as distributer for the Elcar and also handle some used cars. R. E. Kenyon, formerly of Akron, Ohio, has taken the management of the concern.

T. B. Skinner has been made manager of the Sterns Motor Sales Co., a new concern, located at 151-153 North Fourth Street. The new company will handle Sterns and do a general repair business.

LeRoy Dobyns, Hilliards, O., bank president, and Harry C. Godown, Louisville, have taken over the Columbus agency for the Willard storage batteries and have established an office and service station at 211 North Fourth Street.

Several changes have been made in the tire business in the Buckeye capital. The Hott-Dunham Rubber Co. has entered the business at 120 East Long Street as distributer for the Carlisle Cord tires. Mr. Hott has been connected with the Sherwood Crippen Rubber Co. for about six years.



NEW ORLEANS For Used Car Show

NEW ORLEANS, July 26—Motor Row is much interested over the idea advanced by several of the New Orleans dealers of holding a used car show this fall. "The spring is the time to show the new models," said one of the dealers, "but now that the agitation over the handling and valuation of used cars is in the air, why not hold a used-car show in the fall, when most of the farmers and people who are interested in used trucks and used passenger cars have sold their crops and have the time and money to consider the subject more closely."

The Motor League of Louisiana has appointed Major S. M. Lemarie, recently returned from service with the Washington (141st) Field Artillery, as secretary. He is a good-roads enthusiast, and will have much to do with the Louisiana campaign for improved highways that the league is undertaking this year.

Truck owners and drivers are rejoicing over an order issued by the commission council of the city that certain streets leading back from the river into the wholesale district and thence out into the retail section are to be paved. About forty streets are included in the paving plans of the council.

Washington Artillery hall, one of the most historic buildings in New Orleans, which has housed the celebrated artillery organization since its formation, before the Civil War, has been leased by Joseph Schwartz & Co., automobile dealers.

Rapidly increasing business has caused the Greenlaw Truck & Tractor Co., handling G. M. C. trucks and Duplex 4-wheel drive trucks and tractors, of New Orleans, to move its quarters from St. Charles Street to a new and larger building at 1527 Canal Street.

With its home remodeled and new display windows installed the W. W. Robinson Co., distributers for the U. & J. carbureter in Louisiana and Mississippi, has launched a new sales campaign here.

W. P. Parkhouse, New Orleans distributer for the Franklin car, has just returned from a drive of 1347 miles in a Franklin from Syracuse, N. Y., to Atlanta. Ga.

Ginder Abbott, distributer for the Packard car, has returned from the 1000 mile cruise of the Packard convention, aboard the steamer "Noronic" on the Great Lakes, June 15-19. He was one of 510 Packard distributers who were the guests of the company on the trip. Plans for increased production of cars and trucks, and for bettering its distributing organization, were discussed by heads of departments.

Fred Perkins, president of the Capital City Auto Co., returned early in July from a visit to the Studebaker factory at South Bend, Ind., and other cities in an effort to increase shipments of Studebaker car. to his company here.

W. P. Mellon, formerly connected with the Louisiana Motor League, has joined the forces of the Great Southern Liability & Casualty Co., a \$200,000 corporation being formed to handle automobile insurance.

The Sherrouse Motor Car Co. has announced the installation of eight Mitchell agencies in towns outside New Orleans during the week ending July 19. Julian Sherrouse, of this company, announced that he had ordered five carloads of Mitchell Victory Sixes for immediate delivery. The agencies were established at Lafayette, New Iberia, Baton Rouge, Lutcher, Franklintown and Hammond, in Louisiana, and at Laurel and Gulfoort, in Mississippl.

The New Orleans branch of the Automobile Tire Co. of New York is preparing to increase its store and salesrooms, and has received notices from the parent company, which maintains branches in 20 cities, that it has become necessary to enlarge its capacity to double its output.

Recently organized, with a capital of \$15,000, the Victory Oil Co. has opened salesrooms at 613 Decatur Street, where it is engaged in the manufacture of Acme products,
known as non-fluid oils for use on machinery
and automobiles. It also makes wool waste,
a graphite compound and a cleanser. Officers
of the company are G. L. Deano, president;
Sim Watkins, vice-president, and Charles J.
Cunco. secretary.

SIOUX CITY

Dealers Make Changes

SIOUX CITY, IOWA, July 25—N. P. Farrell Motor Co. has succeeded the Hoeven-Farrell Motor Co. Farrell takes entire charge of the management of the company, which will continue to distribute the Stearns-Knight and the Elcar in this territory.

The J. T. Stewart Motor Co., distributer of Pierce-Arrow and Mitchell cars, will move soon into the new building at 505 Pearl Street, in the heart of the automobile row. E. B. Salyers, the manager, says the company may take an agency for airplanes when they get into the new quarters.

C. E. Dailey, formerly with the Hanson Tyler Co., has taken the agency for the Chandler for this territory and for the present is occupying temporary quarters at 619 Pearl Street.

The Iowa Motor Sales Co. has opened a salesroom on Pearl Street here for the sale of tractors and trucks.

The Jones Motor Sales Co. has been formed to sell automobiles, trucks and tractors, with a salesroom on Pearl Street.

The Forry Truck and Tractor Co. has taken the agency for the Bates Steel Mule and the Independent line of trucks.

W. H. Moulton has opened a Delco Light Salesroom and service station at 608 Pearl Street and will cover this part of Iowa from the Sioux City office. He was formerly with the company at Cedar Rapids.

West and Rubel have opened a Vesta Battery Service Station at 412 Pearl Street.

J. A. Fleming and George C. Selzer have opened a truck sales room and service station at 720 Pearl Street, selling the Winther

KANSAS CITY

Watches Its Cars

KANSAS CITY, July 25-The police are checking up every establishment into which a motor car is brought for service or garaging, to see that the owner of the establishment keeps records of the car license and engine numbers and the name and address of owner. A complete list of all such establishments, from service stations and sales rooms to cover factories and paint shops is being compiled. This record will be kept at police headquarters and will be checked frequently against the reports of officers, to note whether every such establishment has been visited frequently. The theory is that if all cars are put on record by service men a stolen car can quickly be found. Garagemen who do not keep these records are likely to be arrested.

This is open season for Butlers in

This is open season for Butlers in the motor and allied trades at Kansas City. The Butler Motor Co., distributer of Dodge cars, is erecting a new home, which will combine the sales and service departments on South Grand Avenue. The Butler Mfg. Co., maker of oil tanks for trucks, has bought 3½ acres in the Blue Valley on which new buildings will be erected. The third Butler to earn special mention this week is J. A., not previously in the motor industry—but he is getting in. He is erecting a building at Kansas City, Kan., to be used for Wyandotte county distribution of a car not yet announced.

Orville Van Noy, who quit the Haynes branch here three years ago to organize the Midco Superservice Tire Co., has become associated with George Vogel. The firm name is changed to the Van Noy Tire & Rubber Co.

The Hudson-Brace Motor Co., Hudson and Essex distributer, will shortly discontinue handling trucks. The Hudson-Brace was one of the first to take on farm lighting plants and trucks during the war period and was highly successful in these lines. It has already given up the light contract and now the truck is going. "It has been going fine, but we want to concentrate on passenger car distribution," Hal Brace of the company said.

The plans of the Mutual Motor Stores Co., associated with the Equipment Co. of Kansas City, for the organization of jobbing branches through the Southwest, will soon be further advanced by the establishment of a house at Dallas, Tex.

R. J. Lyons and F. R Conlan, associated in the bond brokerage business, have left that line and organized the Lyons & Conlan Co., for sales and distribution of Stanley cars and Armleder trucks. They will soon open their sales and service rooms at 3113 Gillham Road. The Stanley has not been represented in Kansas City for several years. W. H. Cook, formerly with the Winton company here, later with the Elgin distributer. is sales manager of the truck department.



BETTER HIGHWAYS GAINING IN IOWA

Fourteen Counties Out of Eighteen Have Voted Better Roads This Year

DES MOINES, IOWA, July 26-The hard surfaced road program is rapidly taking definite form in Iowa. Eighteen Iowa counties have now held their elections to decide whether or not they shall pull out of the mud and, of these eighteen, fourteen have voted to issue bonds for building the roads. The success of the elections thus far held has been so satisfactory that good roads boosters of the state are already talking and have taken the preliminary steps looking to the establishment of the first paved road across Iowa from the Mississippi to the Missouri river.

The preliminary plans look to the paving of one of the already established cross state roads. The Lincoln highway would doubtless have been the choice but for the fact that, of the four counties which have voted against paving, two are Tama and Story, located in the heart of the state and forming an important section in the Lincoln highway. For this reason, it is probable that either the River-to-River or the Great White Way will be decided upon for

paving.

The counties which have already voted for paved roads are Blackhawk, Sioux, Linn, Johnson, Dickinson, Polk, Wood-bury, Palo Alta, Scott, O'Brien, Bu-chanan, Osceola, Benton and Marshal. Marshal county is the latest to get in the good roads band wagon.

Franklin and Hardin counties are the other two which decided to stay in the mud. In Hardin county the good roads advocates attribute their defeat to an eleventh hour attack by the mud roads leaders that if the bankers and merchants of the various towns persisted in yoting paved roads they would retaliate by organizing co-operative banks and stores in every community in the

Although the Iowa paved roads program is just starting it has already shown that paved roads are going to mean greatly increased business for the truck dealers of the state. The Herring Motor Co., Des Moines Ford distributer. this week sold twenty-six trucks that will be used in building paved roads in the state. The sales were to three road building contracting firms in Des Moines. Two other Ford dealers in the state sold nineteen more trucks to a road building firm. All of the trucks sold are one ton and equipped with rear dump bodies.

Maibohm Workers to Study

SANDUSKY, OHIO, July 23-Details of an unusual step, marking a new development in factory management, has just been announced by H. C. Maibohm, president of the Maibohm Motors Co.

This company has installed an educational course in its plant for the training of young men in every department of automobile manufacturing, thus equipping them to hold executive positions later on.

Zenith Production Higher

DETROIT, July 23-The Detroit plant of the Zenith Carbureter Co. is now producing 1800 carbureters daily. Extensive building work is about to start, the nature of which will be announced later.

CONSOLIDATE LARGE **NEW ORLEANS FIRMS**

NEW ORLEANS, LA., July 26-One of the most important deals in the automobile trade in the South has been completed in the consolidation of the Abbott Automobile Co. and the W. P. Parkhouse Auto Co., with the addition of \$50,000 new capital and large increase of territory in which the new corporation will distribute Packard cars and trucks and Franklin and Chandler cars. The tendency of the past year in New Orleans has been to the consolidation and expansion of the large automobile dealers, so as to cover all Louisiana and parts of Mississippi and Texas, but this union of two of the largest dealers was accomplished so quietly that it was a surprise even to many of the other firms on Automobile Row.

The American Securities Co. figures in this consolidation, having provided the \$50,000 capital, thereby giving the new Abbott company a paid in capital of \$100,000. The new company will have a much wider range of territory for the distribution of Packard cars and trucks. extending from the Texas-Louisiana line on the west to Pensacola, Fla., on the east, including territory naturally tributary to Pensacola, and as far north as Alexandria, La., and Natchez, Miss., with their surrounding territory. Plans are being formulated for either the establishment of branches or the making of contracts with local dealers in all the principal cities and towns of this large district. All Packard cars and trucks for this district will be handled through this central distributing agency in New Orleans.

The officers of the new company are: James Long Wright, of the American Securities Co., chairman of the board; F. Prevost Breckenridge, of the same company, president; Ginder Abbott, vicepresident and treasurer; W. P. Parkhouse, vice-president and secretary, and Palmer Abbott, vice-president. J. F. Avery, southern distribution manager for the Packard, and George B. Smith, systems expert for the same corporation, have been in New Orleans several days, advising the organizers of the new firm as to details of the corporation.

For the present, the company will occupy the quarters of both the Abbott and the Parkhouse former companies, but plans are being drawn for an entire building to be occupied as salesroom, repair plant, and service station, to be erected this fall.

SOUTH DAKOTA FAIR PLANS BIG FALL SHOW

Forty Tractor Factories Already Asked Space—Has Big **Building for Cars**

HURON, S. D., July 26-Plans for the automobile and tractor show of the South Dakota State Fair, to be held here September 8-13, were announced to-day by C. N. McIlvaine, the fair secretary. A building with floor space of 36,000 sq. ft. has been turned over for the car, truck and accessory exhibits, with plans outlined for the use, if needed, of another structure of a similar size. Forty applications from tractor companies already have been received and it is expected that 60 acres of ground will be devoted to machinery showing. Two hundred exhibitors are expected in all.

Buick to Make Carbureter

DETROIT, July 25—David Thomas Buick, designers of the original Buick automobile and organizers of the Buick Motor Car Co., Flint, have designed and are about to place a new carbureter on the market. The new carbureter will be made at Wyandotte, Mich., in the plant of the defunct Detroit-Wyandotte Motor Co. This property has been acquired by the Buick Manufacturing operations Brothers. will start about Aug. 1.

Seek Model Road Section

FINDLAY, OHIO, July 26—Transformation of the 40-mile stretch of the Lincoln highway from upper Sandusky west through Hancock County into a model section of the transcontinental roadway is the plan of the Lincoln Highway Association. Plans include making the road 60 ft. wide, building fences along each side, planting trees and arranging lawns attractively.

Tractor Show in Illinois

BLOOMINGTON, ILL., July 25-Under the auspices of the McDonough County Farm Bureau and the Macomb Commercial Association, the tractor dealers of that county will put on a tractor demonstration at Macomb, Aug. 6 and 7. The exhibit will be strictly competitive and a careful record will be made of the performance of each machine, together with the amount of fuel and lubricating oil consumed. There are twenty-five tractors entered. A 200-acre field will be plowed.

Oil Device in Manufacture

ST. CLAIR, MICH., July 26-Edward Werner has rented a factory here and is installing machinery to begin the manufacture of an oil device which he recently patented. This device, when attached to an automobile, is said to prevent the bearings from burning out should the motor run out of oil.



TWO TRACTOR SHOWS FOR PENNSYLVANIA

One Will Be Held at Butler, with the Other at Harrisburg in August

BUTLER, PA., July 28—Butler will have one of the two tractor demonstrations arranged by the State College with manufacturers, distributers and other interests. The other demonstration will be held in Harrisburg. The dates fixed for the Butler demonstrations are Aug. 21 and 22. The demonstration, which will be held at Nixon Station, on the Short Line road, will be in charge of a committee composed of E. K. Hirshman and R. U. Blasingame, of Penn State College, and T. D. Harman, Jr., of Pittsburgh. Most of the manufacturers and distributers of farm tractors in Pennsylvania are interested in the demonstration in one way or another.

Nixon Field, which consists of 125 acres, is regarded as especially suitable for a demonstration of what can be done with the tractor on Pennsylvania's comparatively small farms. The ground is characteristically rolling and has been sown to various kinds of crops, so that the conditions represent average farm phases in the western part of this state. Present estimates, based on inquiries, indicate that there will be at least from 3000 to 5000 persons in attendance at the Butler demonstration alone.

Manufacturers and distributers have arranged to co-operate fully with the State College authorities and county agents and no less than thirty tractors are being listed for demonstrating. They will not compete in drawbar, fuel, speed or the usual tests, but will show how good a job of plowing and other work they can do under actual farm conditions. Plowing will be done on each of the two days from 10 a. m. till noon and from 2 p. m. till 4.

There will be lectures by experts from noon till 2 p. m. The remainder of the time each day will be devoted to private demonstrations.

Dealers' Association to Incorporate

WILMINGTON, DEL., July 25—In order to work more effectively, the recently-formed Wilmington Automobile Dealers' Association has decided to incorporate under the laws of Delaware. The object of the organization, which is a trade association, is to boost the motor business here and promote co-operation among the dealers.

New Orleans Bars Steel Tires

NEW ORLEANS, LA., July 24—Truck owners have ninety days from date in which to change all their steel tires to rubber, according to a city ordinance. Draymen, who protested the ordinance when it was first proposed some three months ago, have equipped virtually all

their trucks with rubber tires, but now the lumbermen have entered protest, claiming that it will cost them thousands of dollars. The ordinance was passed over this protest, but it was agreed that if all the truck owners could not change their equipment in 90 days, further time would be allowed them to make the alteration. The ordinance applies to all automotive vehicles.

OFFICIALS ARE NAMED FOR SOUTHERN LEAGUE

NEW ORLEANS, LA., July 26—C. U. McDowell, automobile editor of the Times-Picayune, and one whose work did much in the organization of the Louisiana-Mississippi Automobile Trade Association, has been named secretary and general manager of that organization. Mr. McDowell has resigned from the Times-Picayune, and will devote all his time to the new bi-state organization, which has opened offices in New Orleans. He has been succeeded on the newspaper by Captain R. H. Fleming, who has returned recently from service in France.

Used Car Situation—G. O. Nevitt, Shreveport, chairman; F. J. Weinberger, New Orleans; R. C. Windes, Monroe, La.; E. W. Edwards, Gulfport, Miss.; J. W. Beeson, Meridian, Miss.

Legislation—J. K. Dunn, McComb, Miss., chairman; Reuben H. Brown, Jeanerette, La.; V. L. Caldwell, New Orleans; R. D. Hines, Jackson, Miss.; George T. Bishop, Shreveport, La.

The association was organized at a meeting of about 300 auto dealers and equipment men from Louisiana and Mississippi, in New Orleans, July 10 and 11.

WHOLE SOUTHWEST IN DALLAS SHOW

Exposition of Cars and Trucks to Take in Several States This Year

DALLAS, July 28—Instead of an automobile show for Dallas dealers, this year's show at the Texas State Fair, Oct. 6 to 19, will be for the entire Southwest.

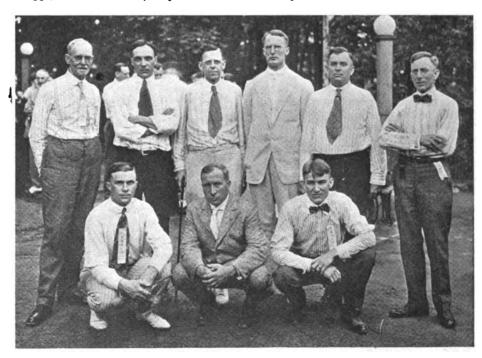
This announcement was made this week by S. G. Davis, of the Dallas Oldsmobile Co., who is chairman of the committee in charge of the show. Practically every automobile dealer in Dallas and many from other cities in the state and some from adjoining states have made applications for exhibit spaces.

The show will undoubtedly be the biggest the Southwest has ever had, Mr. Davis said. The greatest question will be securing the space for all the exhibits. The automobile building is now being remodeled at a cost of more than \$5,000 and an additional structure may be necessary.

Special plans are to be made for a big truck exhibit, since it is claimed the farmers of this part of the country are apparently becoming more interested in trucks than passenger cars.

Champion Has Big Program

TOLEDO, July 26—The Champion Spark Plug Co. has a program calling for manufacture of 35,000,000 spark plugs in 1919, 10,000,000 more than were made by this concern in 1918.



The Presco Club, sales division of the Pennsylvania Rubber & Supply, Cleveland, O., enjoyed an outing July 3.4 and 5 at Cedar Point. When the salesmen lined up in front of the camera their positions were as follows: Left to right, top row, Henry Goodman, Cincinnati; Robert Williams, Cleveland; W. S. Van Horn, Oil City, Pa.; H. D. Sims, Toledo; A. I. Fishbaugh, Columbus; A. J. Price, Akron; bottom row, O. H. Hunter, Erie, Pa.; H. G. Smith (general manager), Cleveland; Edward Smith, Youngstown



MOUNTING PRICES AGAIN THE ORDER

Car Makers Announcing Higher Costs—Expect Truck Prices To Jump Soon

DETROIT, July 26-Price increases for many makes of passenger cars, effective Aug. 1, are in prospect, and already seven or eight makers have added from \$90 to \$200 to their lists. Truck manufacturers will follow suit, according to the best informed opinion in Detroit.

As yet no appreciable increase in truck prices has been made, but they are considered probable when certain circumstances are taken into consideration. Last week one of the largest of the axle manufacturers notified its customers that it would make a 10 per cent increase on passenger car axles at once and a 5 per cent increase on truck axles. Other parts are soaring in price. Such a small part as a hood clamp, which is a piece of metal about 6 inches long, with little or no milling required to produce it, once cost 18 cents-now it brings 42 cents.

The position of the steel market is still uncertain, although improving rapidly. Steel prices, however, are going up instead of down, as many companies hoped. While the increase is slight, it has been sufficient to bring many concerns into the market who were holding out for a further price drop. Labor costs are higher in Detroit to-day than at any time during the year.

The demand for automobiles continues without abatement. Factory output is limited in spite of every effort to reach capacity production. The demand is apparently greater for \$2,000 cars than it is for those from \$700 to \$800. Limitation of production, particularly on the production of closed cars, is due to scarcity of bodies and high price of body material.

There is a growing export demand. With real peace only a few weeks old and all war embargoes still in effect, foreign representatives are crowding into the market and besieging the Detroit factories for a share of the cars, production of which is falling far short of meeting with demand of the American public.

KOKOMO, IND., July 26-Announcement of price increases of \$200 each on all models of the Haynes cars was announced to-day by the Haynes Automobile Co. The advance is on the flat basis of that amount for each model of both the "Light Six" and the "Light Twelve" lines. The new prices follow:

Light Six Old Pric	e New Price
7-Passenger touring\$2,48	\$2,68 5
Roadster, open body. 2,48	
Coupe	3,300
Sedan 3,35	0 4,200
Light Twelve	
7-Passenger touring. \$3,25	0 \$3,450

Roadster 3,250

3,450

Public Pound Is Paris' Cheapest Garage

DECIDEDLY the cheapest garage for dead storage in Paris is the Municipal Pound. In fact, as one of our French contempo-raries, "La Via Automobile," points out, it is an unfair competitor to the legitimate garage.

If you leave an automobile with the pound, all you have to pay on taking it out is the modest charge of 15 centimes per day, for which the state insures it for you against theft and fire.

It will probably be objected that if one should take his car to the pound he would be accosted at the entrance by the guard and asked regarding his business there A little diplomacy is, therefore, in order

All that is necessary to carry the scheme through is to stop the car at the curb, just outside the building, shut off the spark and apply the brakes, and then return home in peace. An agent of the pound will arrive upon the scene presently, take charge of your roadster or limousine, and drive it into this most economical garage, from which you may take it the following day, upon paying 15 centimes, plus 10 centimes for the stamp tax.

It is well to know, also, that you can leave your car at the pound during the month that you may wish to spend at the seashore or in the mountains. In that case the stamp tax of 10 centimes has to be paid only once, so that the total garage dues for the month amount to no more than 4 france, 60 centimes (about 75 cents).

4,000 Coupe Sedan 4,000

MOLINE, ILL., July 24-The Stephens Salient Six have been increased \$200 in price, according to announcement to-day by the Moline Plow Co. In connection with the announcement, the information was given out that the company planned the construction of 12,000 cars during the coming year. The prices below are for open models only, the list on the closed bodies not having been quoted:

Model Old Price New Price No. 82, 2-passenger ..\$1,775 \$1,975 No. 84, 4-passenger . . 1,775 1,975 No. 86, 6-passenger . . 1,850 2,050

Polack Names Dealers

NEW YORK, July 24—The following distributers for Polack tires are announced by the Polack Tyre & Rubber Co.: Tire Sales Co., 204 Paul Street, Baltimore, Md.; Barnard-Michael Tire Co., 908 Main Street, Buffalo, N. Y.; George L. Carroll Co., 719 Broad Street, Philadelphia.

TRUCK DEMONSTRATION GOOD FOR THE TRADE

N. A. C. C. Lists Expositions of Commercial Vehicles—Sales Managers Plan Tour

NEW YORK, July 28-The value of demonstrations and tours in motor truck sales has been proven by the recent demonstration at St. Louis, according to F. W. Fenn, secretary of the motor truck committee of the National Automobile Chamber of Commerce, who announced dates of several other sales booming features.

The St. Louis meeting, Fenn said, was very satisfactory, costing less than \$100 per unit and bringing the dealers together for closer co-operation in building up the truck market. Many towns, he added, expressed regret that they were not included in the trucks' tour, voicing a request that they be considered in making up the next routing. A second Missouri demonstration will be held late in August or early September in connection with the state fair at Sedalia.

Other demonstrations are scheduled for Memphis, Tenn., Aug. 1; Buffalo, N. Y., first week in September; Minneapolis, third week in September; Mad-

ison, Wis., Aug. 26-29.

The N. A. C. C. is also giving publicity to the tour planned by the National Association of Motor Truck Sales Managers through Illinois, Iowa, the Dakotas, Minnesota and Wisconsin. Starting from Chicago Aug. 4, 20 to 25 trucks, representing as many factories, will cover fifty miles a day, with stops ranging from an hour to two days in towns and cities for demonstration purposes, arriving at Milwaukee Oct. 4.

The trucks will carry loads for farmers along the route to demonstrate to this growing class of buyers the practical qualities of these vehicles.

The U.S. Department of Agriculture has offered to co-operate through the agricultural colleges and county agents.

Motor Show In New Zealand CHRISTCHURCH, NEW ZEALAND, July 12-New Zealand will hold a motor show here about the first week in November. This will be the first real motor show ever held in New Zealand.

Form New York Road Council

NEW YORK, July 26-The New York State Council of the Federal Highway Council was organized at a meeting just held in the rooms of the American Society of C'vil Engineers in New York City. The purpose of the organization of the council is to secure state-wide support for the enactment by Congress of legislation embodying principles set forth in the Townsend Bill providing for the creation f a Federal Highway Commission and the construction and control of a system of national highways with Federal funds



TOPEKA CLOSES UP SHOP FOR OUTING

156 Cars Needed To Carry Dealers—National Officer Praises Co-operation

TOPEKA, KAN., July 26—One hundred and fifty-six motor cars carried members of the Topeka Automotive Dealers, their wives, friends and families to the annual association picnic at Tecumseh, Thursday, July 27. Practically all the garages and repair shops in the city were closed for the occasion.

The dinner was a barbecue. Two sheep, two hogs, 300 pounds of pork and 300 pounds of beef were slowly roasted over charcoal fires.

Every man was ordered to wear overalls and those who did not were "placed under arrest." George Evans of the Motor Service Co. pleaded that he had on an old suit. Ben Wolf was "pinched" for smoking cigarettes, it being charged that he was under age.

Several men were arrested for having their tail lights unlit in broad daytime. Eddie Wright, who lost all his spare change on Jess Willard, started a game of African golf, and the authorities made a grand pull there. Ted Lagerstrom, caught with the galloping dominoes at that time, was forced to swear upon a newly vulcanized inner tube that he would not touch them again for twenty-four hours.

Larry Huey, faultlessly attired in a tailored suit, as usual, was arrested for not wearing overalls. He proved an alibi, however, in that he couldn't find a suit large enough to fit him.

Among the drinks served at the park were numerous bottles of what Bert Keele, of the Keele Electric Co., called "faraway beer." W. B. Kirkpatrick was pinched on general principles. Harry Imes, dealer in Dodge cars, was served with a subpoena to appear before the Tecumseh police court on the accusation of needing a shave badly.

The dinner was a delicious repast, and there was plenty to go around. Before the dinner several good horseshoe matches were held.

Harry G. Moock, secretary and business manager of the National Automobile Dealers' Association, informally discussed some of the benefits to the trade of the Big Four organizations. Moock praised the spirit of co-operation between dealers, garage and accessory men as exemplified by the Topeka outing.

Resorts to Airplane to Sign Up Dealer ST. LOUIS, July 26—How an Omaha distributer employed an airplane as a means of transportation to sign up a dealer contract for passenger cars and trucks is told by Harry G. Moock, business manager of the National Automobile Dealers' Association, who was in Omaha when the deal was consummated.

The J. T. Stewart Motor Co. of Omaha learned that there was a prospective dealer in Fremont, Neb. B. H. Sahlers, a salesman for the company, commandeered an airplane and set out to beat any other dealer to it. He left Omaha at 8 o'clock in the morning, arrived in Fremont, about 40 miles away, at 8.46 At 9.15 o'clock he had returned to Omaha with the contract of the Ideal Motor Co. of Fremont in his pocket to handle the Mitchell automobile and the Bethlehem truck

Vulcan Making Bushings

NEW YORK, July 28—The Vulcan Machine Shop, Inc., 55 East Eleventh Street, is going into specializing on the manufacture of bronze and phosphor bronze bushings, wristpins and axle shafts, both for manufacturers and jobbers. At present the company manufactures on contract, but expects soon to have a stock of most of the standard sizes of bushings and wristpins for immediate delivery.

OHIO BUICK DEALERS GUESTS OF COMPANY

CLEVELAND, July 28—One hundred and fifty Buick dealers from eastern Ohio, their sales and service representatives left Cleveland, July 20, as guests of the Ohio Buick Co., Buick distributer for this territory. While the tour was arranged exclusively for Buick dealers and their sales and service representatives, Fred H. Caley, secretary of the Cleveland Automobile Club and of the Ohio State Automobile Association, and Judge Walter D. Meals, president of the State Association, went as special guests.

ELECTRICAL REPAIR SCHOOL TO BE OPENED

Chicago Institution Will Teach Limited Number of Pupils Automotive Work

CHICAGO, July 25—A new school for the training of specialists in automotive electrical repair work is to be opened in Chicago, September 29, by the American Bureau of Engineering, Inc. It will be known as the Ambu Engineering Institute and will have classes starting weekly.

The bureau, under whose direction the school will be operated, for years has made a specialty of instruction in the repair of automotive electrical parts, its chief product being the Ambu trouble shooter for automatically locating electrical trouble.

The Ambu Institute will be open to a limited number of students, but the plan of tuition contemplates an intensive course of training such that the graduates will be specialists in electric lighting, starting, battery work and ignition, and general electrical repair work.

New Device Distributer

NEW YORK, July 26—The Roller-Smith Co., manufacturer of instruments, meters and circuit breakers, has arranged with L. B. Gottschall, Dallas, to handle its products in Texas, with the exception of a small section.

The Value of the Background



The Goodrich distribution station on Broadway, in the heart of New York's automobile row, offered a striking example recently of the screen background idea in window display, discussed some time ago in an article in Motor World. There was no need of peering into the window to see what it contained, a common fault when cars or accessories are placed at the front of an open showroom. The lower center motto was the slogan of the Broadway Association's recent improvement

MOTOR CAR SUPPLY IS FAR OVERSOLD

Detroit Firms See No Chance of Catching Up On Orders for Two Years

DETROIT, July 25—The automobile sales business, which is booming as it never boomed before, is attracting many in Detroit, and if agencies were available, the present year would see numerous new firms in business. This may be said to apply to every other city in the country, for the demand for automobiles in all sections is greater now than at any time in the history of the industry. But automobile agencies are not available these days. Except in cases where new companies are placing their products on the market, no new agencies are going to open up in Detroit.

There are many important and highly satisfactory automobiles which are not represented in the Detroit district, such as the Nash, Auburn, Kissel-Kar, Mc-Farland, and others. These companies have all turned down opportunities to place their products in Detroit and Michigan. The reason is very simple. Why should a company open new agencies, they argue, when they cannot meet the demand of their existing sales organization?

The companies are finding themselves not up against the proposition of selling their products, but how they can turn away sales without creating hard feelings, and without showing partiality. This, in many cases, has become a very ticklish and diplomatic problem.

About two months ago, John R. Lee and C. Harold Wills, two former officials of the Ford Motor Co., withdrew from that firm and announced their intention of manufacturing a new, moderate priced automobile. Since their announcement was first made public, they have received over 1000 applications for agencies. These letters have come from every section of the United States and Canada. Inasmuch as Wills and Lee are just preparing to erect their plant. they have paid no attention to the organization of a distributers and dealers body, and will probably not be ready to take up this work for several months to come.

Unable to secure agencies, many men are going into the used car business. The demand for used cars in Detroit is almost as great as the demand for new models. Used cars are bringing higher prices than ever before. After being repainted, repaired, and retired, many of these cars are selling for more than was paid for them when new. According to Detroit dealers, the buying boom shows no indication of letting up. In fact, every sign points to its continuation for two or more years at least.

Factories have been doing everything possible to catch up with production, but in many cases the big plants have been badly handicapped by a shortage of

material and parts, due to labor troubles in the plants of the parts makers. Hudson, Essex, Buick, Cadillac, Oldsmobile, Chevrolet, Studebaker, Dodge, Ford, Hupmobile, Chalmers, Maxwell, Paige, Chandler and other Detroit distributors are not promising deliveries before September 1. The Buick distributor reports a demand way beyond production. The factory cannot catch up with the request from dealers and distributors. If 1,000 Buick cars could be received in Detroit to-day, the local branch would have a place for all of them. Could the Detroit Oldsmobile distributor have received the cars, he could have sold 1000 machines more than he has already sold in the past three months.

The Chalmers distributor is behind over 200 orders at present, and is selling cars faster than he can receive them from the factory. The Cadillac sales branch is experiencing the best business in its history. If this company was to turn out 30,000 cars instead of 20,000, the extra 10,000 would be snapped up by the dealers almost immediately.

The Hudson and Essex distributor here has even sold his demonstrating cars. At the Hudson plant it is reported that scores of agents have contracted for their entire year's allotment. The Ford Motor Co. is behind over 143,000 orders.

PIONEER MANUFACTURER ADOPTS NEW POLICY

PHILADELPHIA, July 24—Announcement of a new merchandising plan under which automotive equipment manufactured by the L. H. Gilmer Co. will be marketed under the collective name of the Gilmer Woven Automotive Equipment Products, and with a uniform price schedule, was made at the first sales convention of the jobbers' division, automotive equipment department, held this week.

For seventeen years—since the pioneer days of the automobile—the Gilmer concern has been making endless fan belts, now produced for cars, trucks and tractors; fan belting, tire and rebound straps, radiator and hood lace, anti-squeak frame and body lining, asbestos brake band lining, transmission lining for Ford cars, etc., all woven products bearing the Gilmer name. For the convenience of jobbers and dealers in ordering, all popular makes of cars using a flat type belt are grouped and numbered consecutively from 1 to 26. Belts are packed in attractive "sales help" cartons, showing the group number, etc.

The convention was attended by representatives from all sections of the country, sessions being held at the Torresdale Golf Club, where President L. H. Gilmer entertained at dinner, and at the Morelton Inn Country Club.

Goodyear California Plant Started

AKRON, OHIO, July 26—Ground will be broken this week for a \$26,000,000 rubber and cotton plant for the Goodyear Tire & Rubber Co., at Ascot Park.

TRUCKS AND TRAILERS LIMITED BY NEW LAW

NEW YORK, July 26—New size, weight and speed limitations, as well as increased registration fees, for trucks and trailers have been adopted by several states. An announcement of these changes was made here to-day by the Trailer Manufacturers' Association. A compendium was prepared showing the new laws that have just become effective in the states of Pennsylvania, Wisconsin. Indiana, Illinois, North Carolina and Iowa. This shows that Pennsylvania registration fees for a 7-ton truck would be as high as \$150. The report follows:

Pennsylvania, 26,000 pounds gross weight of vehicle and load.

Wisconsin, 24,000 pounds gross, 18,000 pounds on one axle, and 800 pounds per inch width of tire.

Indiana, 10 tons gross.

Illinois, 16,000 pounds on one axle and 800 pounds per inch width of tire.

North Carolina, 51/2 tons load capacity.

lowa, 14 tons gross, 4 tons on any wheel and 800 pounds per inch width of tire.

Dimensions of trucks (which include trucks with semi-trailers) and length of trailer trains are fixed as follows:

Pennsylvania, length of a single vehicle, 28 feet, width 90 inches.

Wisconsin, length of vehicle 30 feet, width 96 inches, length of trailer train 100 feet between 8 p. m. and 5 a. m.

Illinois, length of train 65 feet.

There is a wide variation in registration fees for trucks and trailers. As fixed in new laws they range thus:

Pennsylvania, \$15 for a truck of two tons capacity to \$150 for a seven-ton truck, and \$2 for a trailer weighing 500 pounds to \$15 for one weighing more than 2000 pounds Those weighing less than 500 pounds are exempt.

Indiana, \$6 for trucks of 4-ton capacity to \$50 for 7½ tons or more; trailer fees one-half of truck fees.

Illinois, \$15 for truck and trailer weighing 7000 pounds with load to \$60 for more than 15.000 pounds gross weight.

North Carolina, \$12 for truck of 1-ton capacity or less to \$100 for 5½ tons capacity; trailers \$10 for first ton of capacity and \$20 for each additional ton.

Iowa, \$15 for trucks of 1-ton capacity or less to \$175 for solid-tired trucks of 6 tons capacity; trailers, \$10 for 1-ton capacity to \$70 for solid-tired 6-ton trailer. Rubber-titred trailers under 1000 pounds capacity used with passenger automobiles for personal baggage or effects are exempt.

WESTINGHOUSE TO OPEN NEW DEVICE FACTORY

NEW YORK, July 26—The Westinghouse Electric Manufacturing Co. is equipping the old Stevens plant at East Springfield, Mass., for the production of automotive starting, lighting and ignition appliances. The factory, which was utilized by the Westinghouse concern for munitions making during the war, will give employment to about 5000 persons, and will be operated in addition to a plant engaged in similar work at Newark, N. J.

Some machinery already is in operation at East Springfield,

TESTS OF TRACTORS FAVORED BY SWEDEN

Visitor Tells of German Pre-War Scheme After Viewing Wichita Demonstration

NEW YORK, July 25—Having viewed from afar the recent tractor demonstration at Wichita and being unable to extract from the "results" anything which would aid him in his work of investigating the tractor business, Gunnar Bergstrom of Eskilstuna, Sweden, states that great good could be done in America by the adoption of a plan that is, or was, in effect in America's late—and yet—enemy, Germany.

Under the system in operation in that country an institution for testing all kinds of farm machinery, including tractors, was operated by the Government. To this testing laboratory could be sent any farm machine which any manufacturer or importer desired tested. The results of the tests were then published in a monthly bulletin, which was sold at a subscription rate. Copies of this bulletin for ten years are filed by Bergstrom.

Without some adequate test, states Bergstrom, farmers cannot have sufficient knowledge of what they are buying, and the tractor business will be held back.

Bergstrom, who represents the Munktells Mekaniska Verkstads Aktiebolag, or Munktells Machine Shop Company, has been in America for two months looking over and buying machinery for his company's factory. It made about 500 tractors last year and plans to increase its production greatly. Russia will prove a fertile market, he states.

G. M. C. WILL DEVELOP RATHER THAN EXPAND

NEW YORK, July 24-The General Motors Corp. intends, for the present, to utilize the resources obtained through its increase of capitalization to \$1,020,000,-000 in developing what it has, rather than in acquiring new interests, Otis Friend, one of the vice-presidents, declared to-day. Denying reports that G. M. C. was negotiating for the purchase of the Electric Storage Battery Co., Philadelphia, maker of the Exide product, and the Ajax Rubber Co., New York, Mr. Friend said the corporation was hard at work getting together the loose ends of its varied interests, an undertaking requiring heavy expenditures, and widespread reports of purchases of various other concerns were mere rumors.

Reports said that the G. M. C. acquisition of the Exide would result in its use in the several makes of cars under the corporation's control.

Herring Adds Plane Department

DES MOINES, IOWA, July 28—The Herring Motor Co. has purchased 160 acres of ground between Des Moines and Camp Dodge to be used as a landing field for airplanes and as a tractor demonstrating field. C. L. Herring, president of the company, has decided to make the airplane department an individual department of the Herring organization and Lieut. Clarence Young will be manager. The Herring company has added an airplane accessories line and this week brought two more planes to Des Moines.

U. S. LIGHT ERECTING BIG NIAGARA FACTORY

NIAGARA FALLS, N. Y., July 25— Erection of new buildings and additions to present structures now under way will make the plant of the U. S. Light & Heat Corporation the largest battery manufactory in the country.

The expansion will more than double production, and the various departments will be rearranged to increase efficiency.

New machinery to be installed includes double the number, together with improved types, of oxide mixing and plate pasting apparatus, and new moulding machines, minimizing the hazard to workmen handling molten metal.

NEW BAKER TRACTOR ON THE MARKET SOON

DETROIT, July 25—The Baker Tractor Corp., a new company, will soon place a three-wheel kerosene farm tractor on the market. It has completed its first machine and will start the assembly work on the first 25 machines about Sept. 1. Pattern work has been completed and most of the castings for the first run of machines are finished. The tractor will probably use an Erd engine.

South African Seeks Cars Here

NEW YORK, July 26—Godfrey W. Volkwyn of Johannesburg, South Africa, will reach New York the latter part of this month to seek motor and automotive equipment lines for introduction into that continent. Mr. Volkwyn, whose address will be the African Banking Corp., here, believes that trade in South Africa is becoming normal again after the war conditions and that America should obtain a large share of the automotive business in the Union of South Africa, Rhodesia and the other bordering territories.

Plan New Western Speedways

NEW YORK, July 26—The A. A. A. Contest Board has been advised unofficially that Clifford Durant, the manufacturer-racer, has perfected plans for two 2½ mile plank speedways on the Pacific Coast—at San Francisco and Los Angeles. The tracks, it is said, will cost \$125,000, and Durant expects to co-operate with the Tacoma racing officials in the matter of dates, purses and arrangements.

OHIO HOLDING FOUR TRACTOR EXHIBITS

Local Demonstrations Surpass in Interest Wichita Show— Official Tests Arranged

CHICAGO, July 25—It is a sad commentary on the short-sightedness of the management of the national tractor demonstrations that some of the local demonstrations this season far surpassed the Wichita fizzle in the matter of interest to the public generally and real information for the manufacturers, the trade and the farmer. The state of Ohio has four state demonstrations scheduled in four different cities, each two days in duration, but all between July 28 and August 13. The towns and dates are as follows:

Columbus, July 28 and 29. Middletown, Aug. 1 and 2. Fostoria, Aug. 6 and 7. Akron, Aug. 12 and 13.

Akron, Aug. 12 and 13. Such real information features as drawbar tests on every tractor entered in the demonstration and the forbidding of plow experts to accompany the tractor except for the first two rounds will make the demonstration more valuable than any national demonstration ever has been. Judging from the reports of the first day at Columbus the comparative features are not detracting from the general interest of the event. On the contrary, the attendance at this local affair rivals that of the national demonstration at Wichita two weeks ago. It is certain that the total attendance of the eight days in Ohio will completely eclipse that of the Wichita affair. One of the things which gives the Ohio demonstration the standing that the national demonstrations never have is the fact that it is under the supervision of the Department of Agricultural Engineering of the Ohio State University, with the co-operation of the Department of Agriculture and the County Farm Bureaus. It is only when such tests are under the direct control of independent bodies that their findings can be taken without taint or bias.

Truck Salesmen Learn Driving

NEW YORK, July 26—The N. A. C. C. is giving publicity to a sales boosting innovation of the Grant Truck Sales Co., Cleveland, which has instituted a sixweeks' course in truck driving for its employees. Lectures are given weekly by authorities, usually manufacturers' representatives, on different truck parts. The course is expected to enable salesmen to pass on to customers knowledge which will bring about more efficient performance of trucks sold and better satisfaction on the part of customers.

Federal Opens at Richmond

RICHMOND, VA., July 27—A factory branch of the Federal Rubber Co. of Illinois has been opened here to handle Southern business.



COMING EVENTS

Races, Contests and Tours	New York, N. YJan. 3-10Grand Central Palace, National Automobile Cham-
*Eigin, Ill. Aug. 22-23 Road race. *Uniontown, Pa. Sept. 1 Speedway. *Sheepshead Bay, N. Y. Sept. 13 Speedway. *Allentown, Pa. Sept. 27 Dirt track event. *Cincinnati, O. Oct. 1 Speedway. *Trenton, N. J. Oct. 4 Dirt track event.	ber of Commerce, S. A. Miles, Manager. Chicago, IllJan. 24-31Coliseum, Cars: Drexel Pa- vilion; Trucks, Nationa: Automobile Chamber of Commerce, S. A. Miles, Manager.
*Danbury, ConnOct. 11Dirt track event.	Kansas City, MoFebFifth Annual, Kansas City Tractor Club, Guy H. Hali
Meetings	Manager.
Philadelphia, PaSept. 22-24Annual Convention, National	Automotive Shows at Fairs
Association of Purchasing Agents, Bellevue-Stratford. Denver, ColOct. 1Directors' Meeting, National	HarrisburgAugustCars, tractors, trucks, auto- motive equipment. J. Clyde
Automobile Dealers' Assn. Atlantic City, NJOct. 14-17Twenty-fifth Annual Conven-	Myton, Mgr. Sedalia, MoAug. 9-16Tractors, Kansas City Trac-
tion, Mariborough - Blen- heim, National Hardware Association of the United	tor Club. Toledo, OAug. 19-22Lucas County Fair, H. B. Marks, Mgr. Des Moines, IaAug. 20-29Machinery Hall.
Chicago, In	Columbus, OAug. 26-29 Cars and Tractors. E. V. Walbor, Manager. Rockford, IllAug. 26-28 County Fair
-	Madison, WisAug. 26-29 Cars and Tractors.
Foreign Shows	Lincoln, NebAug. 31-Sept. 5.Cars, Trucks and Tractors. E. R. Danielson, Supt. of Concessions.
Paris, FranceOct. 15 Grand Palais—International Automobile Manufacturers' Congress.	Wheeling, W. VaSept. 1-5Cars, Trucks and Tractors. Hartford, ConnSept. 1-5Connecticut Fair Assn. Rochester, N. YSept. 1-6Automobile Club of Roches-
London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers & Trades.	ter. E. F. Edwards, Manager. Spokane, WashSept. 1-6Cars, Trucks and Tractors.
Tractor Demonstrations	Milwaukee, WisSept. 8-13Milwaukee Automobile Dealers, Inc. Bart J. Ruddle.
Piqua, OAug. 1-3In charge of Prof. H. C. Ramsower, head of Agri-	Manager. Topeka, KanSept. 8-13Cars, Trucks and Tractors. Motor Hall and Machinery
cultural Engineering Dept. of Ohio State University. Fostoria, OAug. 6-7In charge of Prof. H. C. Ramsower, head of Agri-	Huron, S. DSept. 8-13Cars, tractors, trucks, auto- motive equipment. C. N. McIlvaine, Mgr.
cultural Engineering Dept of Ohio State University. Akron, OAug. 12-13In charge of Prof. H. C. Ramsower, head of Agri-	Helena, MontSept. 8-13Cars, Trucks and Tractors. Syracuse, N. TSept. 8-13Cars, Trucks and Tractors. Douglas WyoSept. 9-13Cars, Trucks and Tractors. Peoria, IllSept. 12-20Cars, Trucks and Tractors.
cultural Engineering Dept of Ohio State University Aberdeen, S. DAug. 19-21Regional Tractor Demon- stration under the auspices of the National Implement	Hutchinson, Kan. Sept. 13-20. Cars, Trucks and Tractors. Sioux City. Ia. Sept. 14-20. Cars, Trucks and Tractors. Yakima. Wash. Sept. 15-20. Cars, Trucks and Tractors. Allentown, Pa. Sept. 15-20. Lehigh County Agricultural Assn.
& Vehicle Assn. Los Angeles, CalSeptemberRegional Tractor Demonstration under the auspices of the National Implement	Springfield, MassSept. 15-20Cars, Trucks and Tractors. O. A. Nash, Asst. Gen. Manager. Billings, MontSept. 16-19Cars, Trucks and Tractors.
& Vehicle Assn. Streator, IIISept. 9-12Northern Illinois Tractor & Truck Assn. W. S. Peterman. Manager.	Memphis, TennSept. 20-27Cars, Trucks and Tractors. Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors. J. S. Malone, General Manager
Ottawa, OntOct. 14-16 Tractor and Farm Machinery. Experimental and	Pueblo, ColSept. 22-27Cars, Trucks and Tractors. J. L. Beaman. Manager.
Booth Farms, Inter-Pro- vincial Plowing Match and Tractor Demonstration.	Salem, OreSept. 22-27Cars. Trucks and Tractors. Dealers' Motor Cars. M. O. Wilkins, Mgr.
Showe	Waterloo, IowaSept. 22-28Automobile show, in connection with Waterloo Dairy
MinnesotaAug. 30-Sept. 6. State Fair. Indianapolis, IndSept. 1-6State Fair. Cars and Accessories. Indianapolis Auto-	Cattle Congress: Black Hawk County Motor Trades Bureau, G. V. Orr, Secre- tary.
mobile Trade Assn., John B. Orman, Manager. Greenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett	Kansas City, KanSept. 24-Oct. 4. Cars, Trucks and Tractors. Muskogee, OklaSept. 29-Oct. 4. Cars, Trucks and Tractors. Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. H. George, General Manager.
General Manager. Cincinnati, OSept. 13-20Ninth Annual, Music Hali. Cincinnati Automobile Dealers' Assn., H. K	Chattanooga, TennSept. 29-Oct. 4. Chattanooga Auto Dealers Assn. Brockton, MassSept. 30-Oct. 3. Cars. Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn.
Shockley. Manager. Springfield, Mass Sept. 15-20 Eastern States Exposition. J O. Simpson, General Man-	Columbia, S. COctoberColumbia Automobile Dealers Assn. Northampton, MassOct. 1, 2, 3Three-County Fair. S. E.
Detroit, MichOct. 6-11Closed Cars: Detroit Dealers'	Raleigh, N. COct. 20-25Cars, Trucks and Tractors.
Chicago, III	Shreveport, LaOct. 22-27Cars. Trucks and Tractors Jacksonville, FlaNov. 22-29Florida State Fair and Exposition. B. K. Hanafourde, Mgr.

Toronto Show Looms Large

TORONTG, July 26—A combined motor, tractor, airplane and motor boat show will be held here August 23 to September 6 in conjunction with the Canadian National Exhibition. The motor section has the sanction of the Automotive Industries of Canada and last

year attracted about 600,000 visitors Interest shown by exibitors, Europeans as well as American and Canadian, indicates a large attendance this year. The airplane show will feature war planes, both of the Allies and captured German machines. The entire exhibition will be staged as a victory celebration.

Owen Tire Company in Toledo

TOLEDO, July 25—The Owen Tire Co. has opened quarters in this city. It is one of a number of branches to be owned in the larger cities of the country.

J. R. Applegate, who is secretary of the parent concern, is manager of the Toledo Co.

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MICHELIN AN OPPORTUNITY

Notwithstanding the popularity of Michelin Tires, there are some towns where dealers can still secure this valuable account.

In these towns we offer the following:

- 1st—A thoroughly tested cord tire, made by the oldest pneumatic tire maker in the world.
- **2nd**—A fabric tire of unsurpassed quality sold at a moderate price.
- 3rd—The only ring-shaped tube on the market—a tube that sells itself.
- 4th—One of the biggest and most impressive tire and tube advertising campaigns ever conducted.
- **5th**—Special sales helps for individual dealers.

We invite you to write us now.



MICHELIN TIRE COMPANY

Milltown, New Jersey



Direct Suspension Shock Absorber

Every Road is a Good Road for the Halladay Equipped Ford

Because the lightning-like action of the Halladay "bee-hive" springs takes up all of the jolts and jars before they can reach the leaf spring, the driver of a Halladay equipped Ford car rides in perfect comfort over the roughest roads.

Because the Halladay reduces tire. gas and wear and tear expenses, the man with a set of Halladay Direct Suspension Shock Absorbers on his car saves money every day in the

Give your Ford the same easy-riding qualities of the heavier cars, and cut your expense bills by installing a set of Halladays now.

Made and Guaranteed by men who know.

Price per set\$15.00

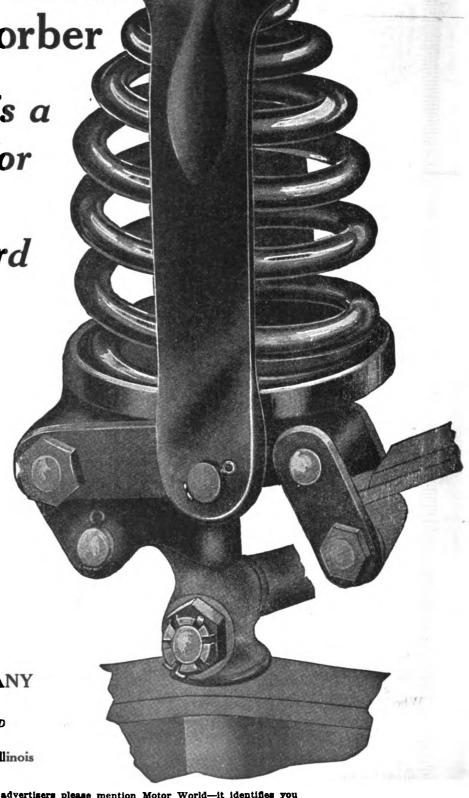
L. P. HALLADAY COMPANY

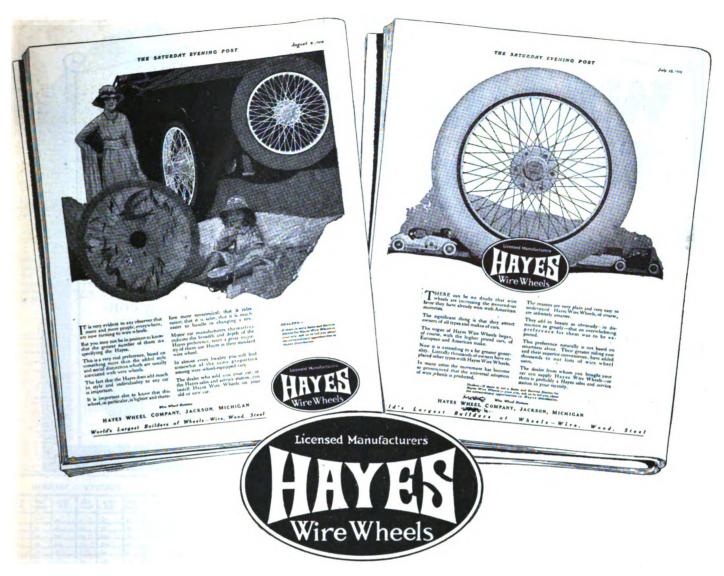
Manufacturers of

BUMPERS, SHOCK ABSORBERS AND **AUTOMOBILE ACCESSORIES**

520-530 Monroe St.

Streator, Illinois





A Preference That Means Sound Dealer Success

It is very evident to any observer that more and more people, everywhere, are now turning to wire wheels.

But you may not know that the greater number of them are specifying the Hayes.

This is a very real preference, and it exists in every part of the country.

It is based, of course, on the fundamental superiorities of Hayes Wire Wheels.

It is susceptible to broadening and deepening far beyond its present scope; and that process is now under way.

National advertising in the Saturday Evening Post is the means we have chosen to make Hayes Wire Wheels supreme in America. The campaign opens in July. The first two advertisements are reproduced above. The advertising will be consistent and continuous.

The dealer is the first man to feel the effects of Hayes advertising—the first to profit from it.

But he cannot share its benefits unless he is equipped to supply the calls for Hayes Wire Wheels which this advertising will surely bring in every community.

The opportunities of Hayes distribution—really extraordinary because of the pronounced preference for Hayes—are now increased a thousandfold.

Dealers in localities where the Hayes is not already represented should lose no time in getting in touch with us.

Wire Wheel Division

HAYES WHEEL COMPANY, JACKSON, MICHIGAN

World's Largest Builders of Wheels—Wire, Wood, Steel

Who Is Actually Selling the Cars

Let us help solve one of your selling problems by submitting definite information showing the comparative registration of automobiles by counties for the last four years in your territory.

Then our monthly statistical service giving this information concisely, clearly and reliably for 1919. You can get it for one county or as many as desired.

Such an analysis places before you the number of each make of car registered from each county, beginning in 1914, with the increases from year to year shown in red figures.

These reports point out the dealers who are getting their share of the business and to what extent some are falling down.

Our Direct Mail Advertising Department, is modernly equipped to handle circulars or personalized letters, addressing, etc., as fast as 100,000 per day. Twenty thousand square feet of floor space and 300 employees at your service.

Detailed lists giving each owner's name, address, make of car, etc., are also available in county units, or we do addressing for those who prefer that kind of service.

Write at once for our new free booklet of valuable information and statistics.

Motor List Company

Home Office:

403 Grand Ave. Des Moines, Iowa

Mr. Martin Tuttle, Proprietor

Cleveland Office Detroit Office 1633 Huron Road Mr. Chas. G. Tobin



INDIANA

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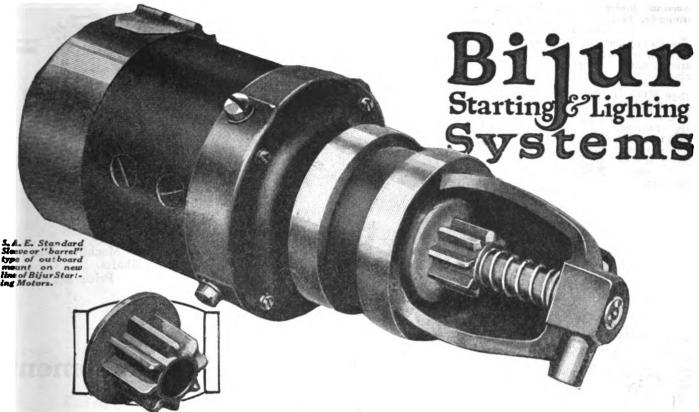
CHANE

COUNTY

MARION

When writing advertisers please mention Motor World-it identifies you





An 8 Tooth Starting Pinion. A New Development in the Automobile Field.

The new line of Bijur starters incorporates an innovation in the automobile field.

The eight tooth pinion, having demonstrated its value and reliability on seaplanes and dirigibles, is now available in standard equipments for modern automobile engines.

This development, made possible by the unique design of the Bijur direct screw shift, means an increase of approximately 28% in the starting effect, the motor remaining the same size as heretofore.

Standard forms of pinion teeth are used to accommodate standard fly wheels. The S.A.E. standard "barrel" type of outboard mount has also been incorporated in the new design.

While the new design is particularly applicable to the modern light six engine, it may be adapted for use on the entire line.

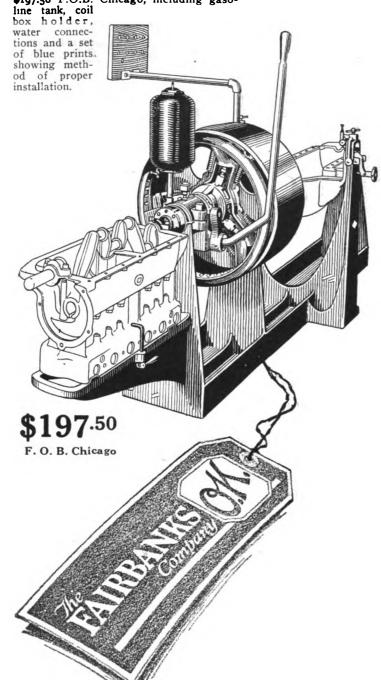
This line of starters includes the well known non-jamming, back fire and fly-wheel-breaking prevention features found only in the Bijur direct automatic shift design.

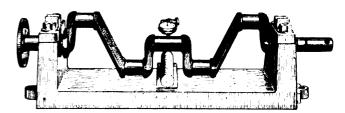


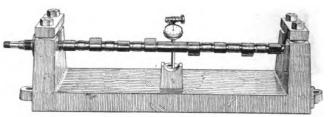
American Junior Combination Bearing Burning-In, Motor Test and Running-In Stand.

Saves 5 to 7 hours over the hand-scraping method in renewing a set of Ford Motor bearings. Gives to bearings a 95% bearing surface.

\$197.50 F.O.B. Chicago, including gaso-







Combination Alignment Machine for Crank Shafts and Cam Shafts. Price \$40.00

Fairbanks Equipment

Ford Service Stations

Some Service Stations are doing more work, giving better satisfaction and making more profits.

Why?

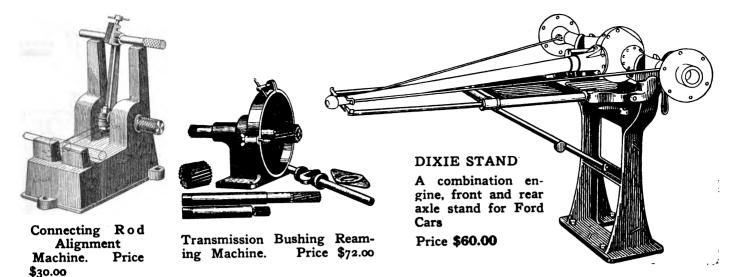
Because they are using Fairbanks labor-saving and profit-making machines and tools.

These machines and tools eliminate all unnecessary work and permit the mechanics to get at the parts to be repaired in surprisingly short time.

Sole Distributors for the SERVICE STATION EQUIPMENT CO. and other manufacturers of garage equipment.



MILL, MINE AND RAILWAY SUPPLIES, SCALES, VALVES, POWER TRANSMISSION, TRUCKS AND WHEELBARROWS MACHINE TOOLS, ENGINES AND PUMPS, AUTOMOBILE AND SERVICE STATION EQUIPMENT



Sold under "The Fairbanks Company O.K."

There is a piece of equipment for every need.

And remember all of these machines are guaranteed by "The Fairbanks Company O.K." This is your protection. Use it to its fullest value.

Write to the nearest Fairbanks Branch House for catalog illustrating and describing each tool listed on this page.

THE FAIRBANKS COMPANY

Administrative Offices:—New York

BRANCH HOUSES

Albany
Baltimore
Birmingham
Boston
Bridgeport
Buffalo

Chicago Detroit Hartford Newark New Orleans New York Paterson Philadelphia Pittsburgh Providence

Rochester Scranton St. Louis Syracuse Utica Washington Havana, Cuba London, England Birmingham, England Glasgow, Scotland Paris, France Listed below are many other labor-saving and profit-making machines and tools which should interest every Ford Service Station owner. All of these machines and tools are sold under "The Fairbanks Company O.K."

Bearing Burning-in Machines for Ford and Fordson Motors Motor Test Stands Rear Axle Test Stands Axle Sleeve Pullers Turning Bars
Bench Motor Clamps Piston Clamps Special Jacks and Trucks Cylinder Boring Machines Re-Babbitting Jigs Air Compressors Transmission Reaming Machines **Bushing Drivers** Rim Tools Pneumatic Valve Grinders Radiator Test Plugs Connecting Rod Alignment Machines "L" Wrenches Speed Wrenches Reamers Straightening Presses Arbor Presses Power Grinders Tractor Tools and special machinery for Ford and Fordson.



MILL, MINE AND RAILWAY SUPPLIES, SCALES, VALVES, POWER TRANSMISSION, TRUCKS AND WHEELBARROWS MACHINE TOOLS, ENGINES AND PUMPS, AUTOMOBILE AND SERVICE STATION EQUIPMENT



for gasoline and oils will be found in the most modern public garages and filling stations in every state.

Inside the garage the T-6 or T-9 Self-Measuring One and Five Gallon Pump—T-57 Portable Tank—T-30-L Self-Measuring Standard Outfit for lubricating oils.

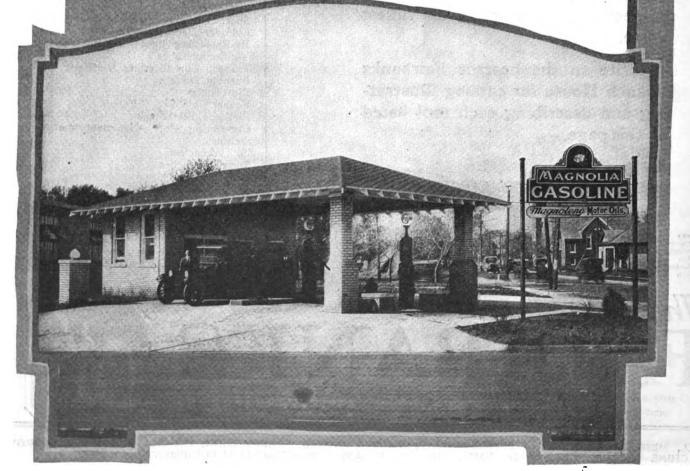
At the curb the T-8 One Gallon Self-Measuring Pump or T-35 Five Gallon Quick Return Pump and either of these may be supplemented by the T-57 in rush hours.

In Gilbert & Barker Equipment there's true economy and this means maximum efficiency and profits.

Just ask for Bulletin 50.

GILBERT & BARKER MFG. COMPANY

28 Union Street Springfield, Mass., U. S. A.



EST'D

1865

When writing advertisers please mention Motor World-it identifies you

entifies you Google
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THE DEALER'S FUTURE RESTS UPON THE CHARACTER OF THE CAR HE SELLS

ERE and there you find automobile dealers whose opinion and judgment are given the utmost weight. Such dealers are invariably men who have built their reputation upon dealing only in cars of dependable value and known character.

Every dealer representing the new 1920 Haynes is laying the foundation for a patronage which will grow most profitably as the years go by.

The new 1920 Haynes, with its four factors of car-character—beauty, strength, power and comfort—has established itself with the public.

The seven passenger touring car, the four door four passenger roadster, the four passenger coupé, the seven passenger sedan, and the seven passenger limousine with their graceful beauty of lines and fittings, with the dependable strength of chassis and construction, with the velvety power of the famous Haynes engine, and with the smooth comfort of the luxuriously upholstered seats enhanced by the rightly balanced application of power—each model has its adherents, and all win positive favor.

The value that lies in representing such a car cannot be over-estimated. And the importance of selecting exactly the right dealer has its proper emphasis in our minds.

In some sections—good territory—we can discuss the possibility of forming dealer connections. In these places we naturally wish dealers whose ability and reputations justify connecting their names with our organization.

Such dealers are invited to get in touch with us by mail, wire, or in person. In writing, or wiring, address Dept. 750.

The Haynes Automobile Company, Kokomo, Indiana, U.S.A.

1893-THE HAYNES IS AMERICA'S FIRST CAR-1919

THE NEW 1920 HAYNES POSSESSES FOUR VITAL FACTORS

THE Haynes touring car will never lose its hold upon the favor of the car-using public, and the new 1920 Haynes makes an especial appeal to every one who wishes a car that is wholly desirable.

The four factors of car-character—beauty, strength, power and comfort—are deftly combined in the new 1920 Haynes. Its motor of velvety power, its extrastrong frame, its well-engineered balance—these features underlie the constant sense of security and comfort in the Haynes.

The thoughtfully placed refinements and conveniences add to the essential character value of the car. It is the touring car naturally expected of the builders of America's first car-of an organization with the spirit and principles established through twenty-six years of successful automobile manufacturing.

We advise prompt selection of the new Haynes you wish to own. In every way consistent with maintaining the character of the Haynes, we are expediting deliveries.



NEW 1920 "LIGHT SIX" Open Care

Touring Car—7 Passenger Roadster—Four doors, 4 Passe Closed Care

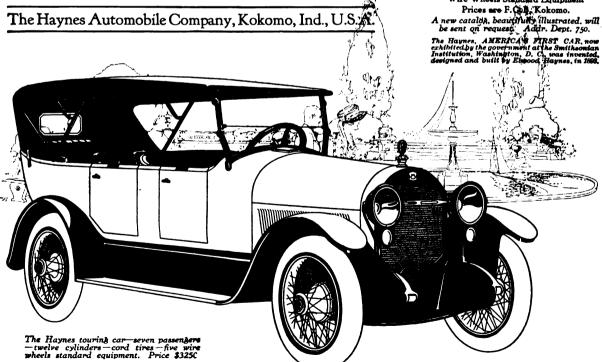
Coupé-4 Passenger Sedun-7 Passenger Limousine-7 Passenger Limousine-7 Passenger 400
Wooden Wheels Standard Equipment

NEW 1920 "LIGHT TWELVE"

Open Care

Touring Car-7 Passenger . . . Roadster-Four doors, 4 Passenger Closed Cars

Coupé—4 Passenger Sedan—7 Passenger \$3800 Wire Wheels Standard Equipm



AMERICA'S FIRST CAR-1919 1893—THE HAYNES IS



No. 47

This No. 47 is a heavy duty machine which has been used for several years in factories and large service stations where the demand for air was constant

and unusually heavy. Every detail has been carefully worked out and the perfected machine will give constant service over a long period of years even though operated all day and every day.

Truck owners are more and more coming to the use of giant pneumatic tires and each day sees more trucks in use. The inflation of these tires is a new problem, involving large capacity at high pressure. As usual the Brunner engineers have foreseen this need and have provided Brunner equipment to exactly meet it. By taking this time tried heavy duty No. 47 with special fittings devised for this new service, we are able to offer equipment to inflate these giant pneumatic truck tires.

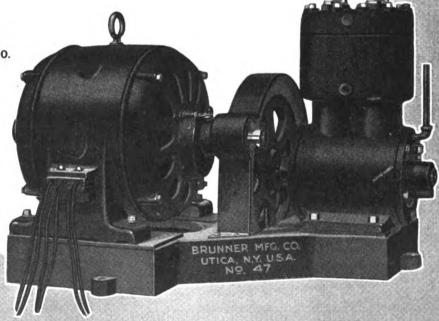
In developing equipment for this new service, valuable assistance was received from the engineering departments of several of the larger tire factories.

Let the Brunner engineers help you in the selection of the proper complete equipment to suit your work and location.

BRUNNER MANUFACTURING CO.

Works: UTICA, NEW YORK

Sales Offices UTICA, N. Y. CINCINNATI, O.



· j.



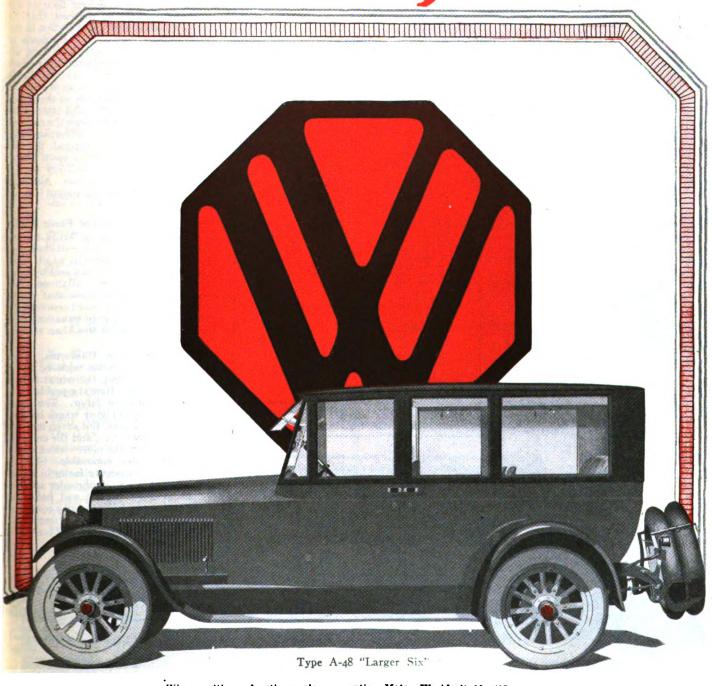
SOME dealers seem astonished at the hold Westcott has obtained on its market. They needn't be. This position has not been suddenly won. On the contrary, over a period of years Westcott has been gaining an increasing reputation as a fine car by the slow process of earning it. Performance built the reputation. Advertising is simply extending it to cover a bigger field.

Two Chassis Types

The Westcott is made in two types—"The Larger Six" and "The Lighter Six." Both come in a variety of Body types of which one only is shown here. The two cars are alike in quality—both deserve the title "The Car with a Longer Life."

THE WESTCOTT MOTOR CAR COMPANY SPRINGFIELD, OHIO, U. S. A.

with a Longer Life



When writing advertisers please mention Motor World-it identifies you

From Wheatfield to Flour Sack via the Motor Truck

How Ship by Truck Helps to Make and Distribute Flour

(A reprint of an advertisement by Harvey S. Firestone, President, Firestone Tire & Rubber Co., which appeared in the Literary Digest of July 19th)

N previous Ship by Truck articles the study of transportation has been general. Here we see what it does for one industry, the making of flour. Many owners of small flour mills have had difficulty under recent conditions in delivering flour and obtaining wheat. Ship by Truck answers both problems and makes a logical "return loads" arrangement. Millers are hauling flour and feed out to the farmers, building up their sales, and returning with wheat purchased at from two to five cents below "mill door" price.

From Threshing Machine Direct

In many instances the wheat is being hauled directly from the threshing outfit in the field. This saves time and labor in handling. Here is an economic influence that affects every one of us. It reduces the cost of one of the most important food staples.

A mill in Grove City, Ohio, has expanded its selling scope from "mill door" trade to a radius of some ten miles through Ship by Truck. They have eliminated the delays of short haul freight to adjacent towns. And they have opened up profitable business in nearby territory that could not be obtained otherwise.

A fifty-year-old flour mill in Jackson County, Wisconsin, more than holds its own against youthful competitors by a vigorous application of modern business methods. Ship by Truck has carried the flour from this mill to all the surrounding villages and farm homes and wheat has been brought in at low cost as needed, effecting a saving for the farmers as well as the mill itself.

Local Wheat Market Revived

In Norwalk, Ohio, a small flour mill enjoys a lively trade with grocers

dius, by the aid of Ship by Truck. A thriving business was re-established after the mill had been out of operation for several years. This mill has proved especially successful in stimulating wheat production in the community by furnishing an active local market.



Firestone Ship by Truck Bureaus are now in operation in the following cities:

Akron, Ohio
Albany, N. Y.
Atlanta, Ga.
Baltimore, Md.
Birmingham, Ala.
Boeston, Mass.
Brooklyn, N. Y.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Cleveland, Ohio
Columbus, Ohio
Dallas, Tex.
Davenport, Ia.
Des Moines, Ia.
Detroit, Mich.
El Paso, Tex.
Erie, Pa.
Fargo, N. D.
Grand Rapids, Mich.
Great Falls, Mont.
Harrisburg, Pa.
Hartford, Conn.
Houston, Tex
Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo.
Los Angeles, Cal.
Louisville, Ky.
Memphis, Tenn.

Call up your Local

Milwaukee, Wis.
Minneapolis, Minn.
Minot, N. D.
Nashville, Tenn.
Newark, N. J.
New Orleans, I.a.
New York, N. Y.
Oakland, Cal.
Oklahoma City, Okla.
Omaha, Nebr.
Philadelphia, Pa.
Phoenix, Aris. Offinana, Newsylvana, Pa.
Philadelphia, Pa.
Phoenix, Aris.
Pittsburgh, Pa.
Portland, Ore.
Provideace, R. I.
Richmond, Va.
Rochester, N. Y.
Sacramento, Cal.
St. Louis, Mo.
Salt Lake City, Utah
San Antonio, Tex.
San Francisco, Cal.
Scranton, Pa.
Seattle, Wash.
Spoikane, Wash.
Springfield, Mass.
Syracuse, N. Y.
Toledo, Ohio
Washington, D. C.
Wichita, Kan
Youngstown, Ohio

Call up your Local Bureau for Names of Lines, Rates, Schedules and Other Information Regarding Truck Shipment.

Trucks and trailers are responsible for the fact that many thousands of such small flour mills throughout the country are today in active operation.

Flour Moved at Reduced Cost

A miller at Springfield, Ohio, reported that he was able to deliver flour at the dealer's wareroom at the cost that he could by rail to the freight station in the same town. In addition, the volume of business to small dealers has been increased. For in many instances he states they will increase a normal order of say. five barrels, to fifteen barrels in order to have it delivered promptly at their door by truck. This miller also states that his trucks operating through the country have proved an excellent advertising medium. "We gain also through the fact that we are enabled to keep a better class of labor on our delivery service than we could with our teams. Although it costs more money, the output is practically double per man."

At Work for the Larger Flour Mills

The work of Ship by Truck for the larger milling companies is well illustrated by the report of a concern which operates over forty-one trucks and upwards of sixty salesmen's cars at all times. Their cost sheets convinced them that trucks were not only a saving over horse vehicles. but in a large number of situations were transporting flour at less than railroad freight rates.

Near Sacramento, California, seven three-ton motor trucks replaced fortyfive teams in moving the wheat from a 23,000-acre farm. Here the problem was largely a matter of labor. The truck drivers were paid higher wages individually than teamsters. But seven men did the work of forty-five; and the crop was

moved promptly to the mills-which would have otherwise been impossible. Ship by Truck is already a mighty factor in lowering the cost of flour. Its broader application should aid housewife and baker to produce a larger loaf for the same cost or to

reduce the cost of the present loaf. Farmer, miller, baker and consumer



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239 West 89th St., New York City. 'Phone Bryant 8760 PUBLISHED EVERY WEDNESDAY BY

The Class Journal Co.

U. P. C. Building, 239 West 89th Street, New York City
Horace M. Swetland, President
W. I. Ralph, Vice-President
A. B. Swetland, General Manager

Business Department Charles B. Shanks, Manager

Editorial Department David Beecroft, Directing Editor Ray W. Sherman, Editor J. Howard Pile

Branch Offices

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'Phone Randolph 6960

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Cleveland—Guardian Bidg., 'Phone Main 1412

Philadelphia—Widener Bidg., 'Phone Walnut 5601

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Horseless Age Subscribers

Subscriptions of The Horseless Age transferred to the subscription list of Motor World in the merging of the two publications will be completed in full by the weekly issues of Motor World to the dates of expiration shown on the records of The Horseless Age.

Postage stamps will be accepted in payment for subscriptions. Checks, Drafts and Money Orders should be made payable to MOTOR WORLD;

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For highest spark plug efficiency—



All Sizes \$1.50 Each
1/2 in. Long. 1/2 in. Standard. 3/4 in.
Standard. 1/8 in. Long. 1/8 in. Standard.



On passenger cars, trucks, tractors and stationary engines the country over, the REX has qualified as a most durable and dependable spark plug, capable of producing at all times a hot, sure spark.

Under every-day working conditions, on these implements of power, it will render a longer and more efficient service than other plugs—at any price.

Protected with genuine India Mica insulation, which cannot chip or crack, and which makes the plug practically invincible against wear and destruction, the REX is splendidly equipped for the hardest kind of service.

The REX SPARK PLUG comes in all sizes—a size for every truck, tractor and engine. If your dealer cannot supply you, order from us direct.

Our Guarantee To Buyers

In all our direct mail and newspaper advertising we incorporate the following:

"Order a set of plugs at \$1.50 each; if not perfectly satisfactory, return them to us within 30 days, and we will either replace them or refund your money."

Dealers take no chances in selling Rex Spark Plugs backed with the above guarantee.

Satisfied customers our best advertisement.

REX IGNITION MANUFACTURING CO. 254 W. 54th St. New York City

Ø

AS IT SHOULD BE

"I find Motor World the best paper I ever subscribed for. It enables you to find just what you want—when you want it, and all of your advertisers have been found solely reliable."

The foregoing extract from a letter dated July 7 from Thos. A. Best of Richmond, Ky., tells a simple story in a simple way and causes the management of Motor World to feel mighty proud of the fact that every bit of advertising copy appearing in the paper is carefully edited so that there may be at no time any announcements by advertisers that are extravagant in claim, fraudulent in statement or unfair to other advertisers.



Do it the easy way

Solid shims are out-of-date. Loose-leaf shims are trouble-some to handle. Filing is a waste of labor. Assembling means lost time. Use—

IAMINUM

LAMINATED SHIMS are made in a jiffy. Time, labor, money saved. Just peel off layers with a knife—that's all. Absolutely accurate. Smooth surface always. A finer, a better, a more satisfactory bearing adjustment than with old-fashioned solid or loose-leaf shims. Laminated Shims may be obtained with Babbitt facing.

Stock Shims for—Ford, Chevrolet Four-ninety, Continental 7-W, Continental 7-N, Maxwell, Overland, Dodge.

LAMINATED SHIM CO. 533 Canal St. New York

Detroit: Dime Bank Building St. Louis: Mazura Mfg. Co. London: R. A. Rothernel, 6 Great Marlboro' Street, London, W.



Vol. LX

New York, U. S. A., Wednesday, August 6, 1919

No. 6

WHY TAKE HER?



Who'll Speak First?

NO MORE TIRE

Everybody's for it.

But most of the tire people seem bashful about saying so publicly. Let's put the cards on the table and eliminate this trade nuisance NOW! Why wait?

ANUFACTURERS of tires have it in their power to bring about one of the most important reforms in the automobile business in recent years—elimination of the mileage guarantee on tires.

MOTOR WORLD'S leading editorial in last week's issue, advocating dropping of the guarantee nuisance, has met with enthusiastic response among pro-

ducers, distributers and dealers.

Not a voice is raised against the proposed change in policy. turers admit the guarantee is a breeder of dissatisfaction all along the line from the producer to the consumer. They declare it puts a premium on dishonesty and recklessness.

Manufacturers, large and small, hope the guarantee system can be wiped out. BUT EACH WANTS SOMEBODY ELSE TO TAKE THE BULL BY

THE HORNS.

Dealers all along New York's automobile row hail with delight Motor World's crusade. "I'm for it. It ought to be done—not to-morrow, nor next month, nor next year, but to-day," is the unanimous sentiment.

But the dealers recognize their helplessness in the situation. They

realize that the manufacturers who inaugurated the guarantee scheme must

put an end to it.

Representatives of Motor World talked with heads of a dozen tire making corporations, some leaders in the field, others youngsters, just getting fairly on their feet.

The larger concerns, conceding that the editorial was sound and approving the course outlined, want to "think it over" a few days before making statements for publication. "Jones" wants to know what "Smith" thinks

The smaller companies, frankly admitting that they are forced by circumstances to follow the lead of the big fellows, have high hopes that the suggestion of this periodical will be carried out.

MARKATURIN MENDERATURIN MENDERATURI MENDE Digitized by

GUARANTEES

WHO WILL SAY THE WORD THAT WILL PUT THE TIRE INDUSTRY ON A FOUR-SQUARE BASIS?

Who will be the pioneer in blazing the way for merchandising tires on their merits?

LET TWO OR THREE OF THE BIG MANUFACTURERS COME OUT WITH A FLAT-FOOTED ANNOUNCEMENT KILLING THE GUARANTEE PARASITE and it will stay dead for all time.

This is no time for stretching competition to the verge of destruction. The producer who can make the best tire and sell it at the lowest rate consistent with fair profits will get to the top. And his nearest neighbors will be the men who are trying hardest to do the same thing.

With industry facing a period of prosperity unprecedented in history, with the demand for motor vehicles far exceeding the most sanguine forecasts of the post-war prophets, the call is for *co-operation*.

Tire manufacturers will do a service to themselves, to the automobile merchandising trade and to the car owning public if they will get together and tell the world that tires will be sold as tires, and not as tickets for so many miles of touring.

There is too much chance to let George do it as long as the guarantees stand. The fellow who delights in burning up the roads should worry as long as he can stalk indignantly into a salesroom, make a large noise about tires that "went bad" before their guarantee was half used up, and get away with it!

Meanwhile, the careful motorist, getting far above the guarantee out of his purchases, sticks to the brand of tire that stands by him, tells his friends about them and, unconsciously, is the sort of silent salesman that every honest product recruits to its service.

BUT HE PAYS THE FREIGHT, while the fellow who kids himself into thinking there's nothing wrong about doctoring the truth a little here and there in the performance record of tires that he punished by wild driving continues to cash in on his petty dishonesty!

Why not make every purchaser a tire salesman by selling him good tires—with no strings attached?

Why not lay your cards on the table, MANUFACTURERS, and relieve your dealers of the lost time, lost money and lost tempers caused by the adjustment nuisance?

Good tires need no guarantee as a sales stimulant. Poor tires have no place in the industry, and if any are being coddled along under the guarantee system, the sooner they are killed off the better.

LET THE MANUFACTURERS COME OUT IN THE OPEN AND TELL THE PUBLIC THEY ARE SELLING PRODUCTS—NOT PROMISES!

WHO WILL LEAD THE PROCESSION?

 \Box

"Kindergarten Stuff"

Being a Page in the First Principles of Business—If You Have Thought You Were Past the Kindergarten Stage, Read This Page and See If You Didn't Overlook Something in Your

INNEY is engaged solely in the task of running a garage, providing service and retailing automotive parts. He does not sell passenger cars, trucks or tractors. Some time he may—and probably will.

But to-day he has only a garage and an accessory store and he is operating them, or trying to, along the same principles of merchandise science that govern other lines of such as department business, stores, hardware shops and up-todate groceries. Which probably is the reason he has doubled the value of his property, trebled the number of his workmen and rolled up a good bank account during his four year ownership. However, let him do the talking.

"I read a letter in Motor World not long ago in which somebody from Minnesota wanted to know why that magazine printed so much 'kindergarten stuff,'" he began. "I guess the reason must be that some folks need it; all of us have never reached that state that we can't look back on our childhood days and find out lots of things we either have forgotten or failed to learn.

"Reminds me, the other day one of the youngsters asked me something about grammar that I couldn't for the life of

me tell him. And you know I really did go to school for quite a few years and have been speaking the language as long as I can remember. But I couldn't answer the boy's fourth grade problem.

"A lot of us are that way in business. We forget and overlook and fail to learn little things about running our shops that cost us money and patronage. So, it's good to have somebody or something, like a trade journal, come along now and then and stir us up to the kindergarten stuff we ought to

"Now right here in this little town of mine is a case," Kinney went on. "I have three competitors. Two of them are staggering along under business ideas that suggest to me an inner tube after it has been stuck full of pinsalmost useless. The third is a youngster who has some good thoughts and for whom there may be a bit of hope. If I thought it wouldn't hurt my own business, I would like to give those three a few lessons in better business, such as keeping the place clean, gaining the confidence of their customers, making proper displays, keeping cost records on a worth-while basis and running the right kinds of advertising. But, probably, if I did offer to do so, they would tell me I was talking kid-fashion.

Business Childhood

"Now the difference between us is that I am trying to run this shop as a motor business, not like a livery stable where the owner can't seem to think of anything but 'hay and oats,' that being all a horse eats. Some garagemen know only of 'gas and oil,' as being the sum and total consumption of the automobile. And their customers have to drive in for it, like the livery stable man. Oh, yes there are lots of 'stable' garages yet, run and operated not by automotive men but by livery stable workers. See what I mean?"

It was Saturday night, nearing closing time, and Kinney stopped his talk long enough to sell a tire.

"May need it to-morrow," the customer said, "and I don't want to take any chances."

"You see I close up the place on Sunday," Smith resumed. "Some of my customers kicked about it at first and threatened to go elsewhere with their trade. But as a business man, I believe I am entitled to as much rest as anyone else and I see no reason why the motorist can't buy just as well on Saturday as he can on Sunday. It's merely a question of educating him to remember that he should get what he needs before he needs it. And I have the idea that it didn't cost much to keep the place shut up one day a week, although my competitors do keep open. If it has, I am more than willing to pay the price to have the day of leisure.

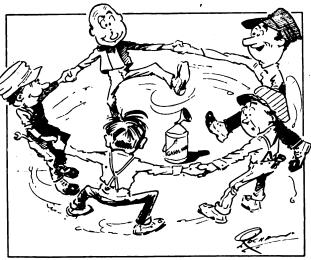
"Call it post-graduate or kindergarten or whatever kind of stuff you want to. But I can see no reason why a man who owns a garage shouldn't be as much of a business man as anyone else. I mean that about more things than merely working on Sunday.

"Some garage owners go around with grease in their ears and eyes and their clothes dirty all the time they are around the shop. That may be all right for the man who is too lazy to wash up or who isn't the owner or manager of a business. But I am owner and manager. Consequently, it is as much a part of my duties to wear a clean collar morning and afternoon and to keep my trousers pressed as it is for Jones who runs the bank around on Main Street. He is

selling confidence in his place of business and I am trying to do the same for mine.

"Once upon a time, when I needed kindergarten lessons about as badly as anybody could, this office and storeroom used to be so dirty that a customer hardly dared to come in. I thought I couldn't afford to hire a man to sweep it out and I was too busy to do it myself. And I thought I was making money.

"Well, that was one of those funny ideas, such as bending the barrel of your rifle and shooting a curve to hit the squirrel behind the tree. It didn't work out and cost me several times what I saved, both in my own self-respect and in





dollars and cents in my cash account.
"I thought I knew a lot of things then, just like I do now. But still I cannot remember that rule of grammar the youngster wanted. See what I mean?"

Kinney paused long enough to reach into the drawer of his desk and find an old photograph that showed his place as it was four years ago.

"Looks pretty good, at that, doesn't it?" he asked, chuckling. "But it wasn't all you might think. The windows didn't show up at all and the only thing I had in them was a bunch of old junk. I am willing to gamble that the displays weren't changed once in six months, if at all. Generally they were so dirty that you couldn't see through the glass if you did happen to take a look.

Changes His Display

"And the place needed a coat of paint so badly I blush to think about it. It needed some new signs and a lot of other things as well.

"But it isn't like that now. I change my displays at least every two weeks, if not more often. And they are real displays that mean something and that sell things—not mere rubbish just thrown in, but thought-out ideas that have some 'pull' to them. Also the glass is always clean and, if you noticed, the place doesn't need any paint now.

"You would think that anybody in any kind of business would know that much. But I didn't and, if you will only look around, you can find lots of others who need educating just as badly as I did.

"Let me tell you something else, something that may not have been at all typical of garages at that time or may have passed off into the limbo of forgotten things by this year 1919. But they were typical then of this place.

"I had customers who wouldn't leave their cars here overnight because they were afraid I might steal some of the gasoline left in the tanks or that I might disconnect something in the engine and then charge a big price for fixing it. Imagine the situation if a customer thought I would take a lap-robe or a spark-plug out of his car. However, I am telling you that was the case here four years ago. Kindergarten stuff, as any real business man would tell you, but it was one of the things I had to face and one of the things to overcome.

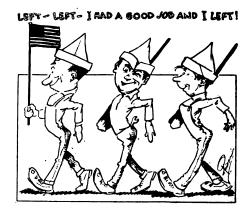
"It really is of little importance for us to talk about theft in garages. I mentioned it merely as an exaggerated point with which to make another point—like the Yankee who answers a question by asking another one. That is, the job of getting your customer's confidence.

Works To-day for To-morrow

"I want him to believe whatever I say to him and to trust me enough to take my advice without question. My business is built on those thoughts, as must be every successful business, whether it be motor cars, fish-hooks or safety razors

"That takes hard work and constant efforts. It means study and more study, both of the garage industry and of human nature. It means employing only men who are good workmen—and that is difficult, particularly in a district such as this, far from any large city. It means that I never let a car out of the place unless it is properly repaired or, if not, the customer must know the why and the wherefore. It means constant supervision, close and thorough, by my repair foreman and it means that I must be on the watch all the time to guard against any mistakes.

"Conditions may be different—and probably are—in the larger cities. I don't know, my garage experience practically is l'mited to this place, with its 10,000 inhabitants. As you can see, the run of my customers are the same week after week and I know them pretty well. Since that is so, I ought to be able to say, 'Jim, this car of yours needs such

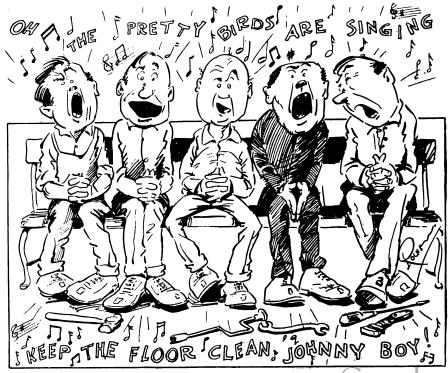


and such a thing done to it,' and Jim has confidence enough in me to believe I know what I am talking about.

"Or, if Jim believes in my store, he will drop in and say, 'Kinney, expect you better look over the old boat and if anything is wrong, fix it up.' You see he knows my shop won't charge him for something that isn't necessary. I might stick Jim a few dollars to-day and lose five times that much to-morrow. See what I mean?

Looks for Good Will

"A real merchant doesn't let every day stand alone—he is working to-day for the profits of to-morrow. Some folks call that idea looking for 'potential trade' and some folks call it 'good will.' But it looks to me like nothing but 'common horse sense' of the most kindergarten variety. But I know there are competitors of mine here who apparently don't think so, or who apparently don't care enough about future business to worry about it. And I sometimes have tourists coming here who tell me about experiences at other places that indicate this isn't the only burg where some first class teaching is needed."



"Good by-Gone for Two Weeks"

A suggested plan for giving your workers a vacation all in a bunch—a new idea for the motor industry, but one that merits consideration from the standpoint of better business that attempts to solve its problems in a careful, intelligent manner.

GIVE IT A THOUGHT.

a number of dealers on the suggested plan—many disagree and a few favor it. WHAT IS YOUR IDEA?

П

ITH summer wending its way into autumn and the hot months approaching their end, the wise man in the motor industry will look back over the difficulties and problems that have arisen during June, July and August so that he may plan—with them yet fresh in his mind—their eradication or alleviation in another year. And chief among these must be considered the vacation problem—that necessary bugaboo that cannot be overlooked and yet which slows down the energetic workings of a key-up business organization.

Vacations, of course, cannot be wiped off the books and forgotten. Workers are entitled to a period of rest, and few, indeed, are the shops and showrooms that do not allow their men and women employees at least two weeks of recreation. There was a time when business concerns solved the difficulty with the simple system of work fifty-two weeks each year. But better industrial methods have cast that plan into the discard, permitting each worker a period, varying in length, during which he or she may forget absolutely the dragging cares and worries of the job. Hygiene and health demand such a relaxation.

Vacation Period One of Confusion

However, the vacation period is always marked by confusion and difficulty, with the work of one person shifted to the unaccustomed shoulders of another or not done at all until the experienced man or woman returns when the two weeks are up. Sometimes "green" workers are taken on for the period, alternating for each absentee or sometimes no effort at all is made to continue the work of the one who is gone. The hole thus made in the organization is left unfilled and the leak—in delays, mistakes and lost opportunities—becomes costly.

It is this lost or suspended motion that must be reckoned and its solution planned. And each shop and agency must solve it separately, on the facts of each individual case. But a few methods may be suggested, out of which the final answer may come.

Vacation periods may be so arranged that they fall in slack or idle times.

The business, as a whole, may be shut down for the necessary length of time with every worker, excepting for an emergency service, going away at the same time.

The latter plan is the one to be discussed here. That it is new and undoubtedly untried in the motor industry is admitted, and it is suggested for each dealer to consider on the merits of his individual problem. A few concerns in other fields have tried it out and find that it works well. Whether or not it is applicable to the selling of motor cars is a question that must yet be answered. But its success elsewhere has been such that it merits thought at least by distributers and dealers of automobiles.

The idea, in brief, is simple. It is that for two weeks the concern practically close its doors, leaving behind only a skeleton force in service, show room and office to handle emergency service. Practically every worker of the company would spend his vacation, thus, during the same two weeks, and each would come back at the same time to take up the duties again, beginning exactly where he had left off, somewhat as though the week-end period had been extended and the intervening days forgotten.

The difficulties of the plan are many, as are, indeed, the difficulties of the present system. No "green" workers would be on the job to make mistakes or to overlook opportunities that the experienced man would have seen. No job would be dumped upon another

worker, causing that person to perform not one but two pieces of work during the time of absence. And the work would not be left undone for the period as there could be no work to be done.

П

Motor World has sounded

Harried and busy employees, trying with difficulty to handle two things at the same time, have caused many and large losses as the burden that previously has taken up all their energies during the working day has not only been increased but doubled. It is a maxim without dispute that an engine can do only a certain amount of labor and that that amount cannot be increased two-fold. Why should it not be the same with men and women and why should they, even for the short period of two weeks, be called upon to attempt to pull a much greater load than they had during the rest of the year?

Suspend for Two Weeks

The "close-down" plan would merely suspend business, and, at the end of the year, would show the same number of days of work, counting the business as a whole. It would declare simply that the business must be done at another time or not at all, and it would start in again with a fresh sheet at the end of the two weeks of absence.

The suggestion is that the business be kept in operation merely in skeleton form for the period of the close-down. One or two salesmen, depending upon the size of the establishment, would be kept in the showroom for those persons who voluntarily came in to buy. No outside prospect work would be attempted. This part of the business would be suspended. One person would be left in the office to answer telegrams and emergency letters that, from their nature, merited immediate reply. But everyone else, from the president or manager down to the new-

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est office boy, would have the sign, "Gone for two weeks, don't bother looking for me," upon his desk or station. In the service room it would be the same—a limited number of mechanics, the number dependent upon various considerations—would remain to do what work could not be put off. Other departments would be served similarly.

Many difficulties, of course, would beset the pioneer who would attempt first to put the plan in operation. He would have to educate his patrons to permit the close-down and he would have to arrange with his workers for a time most suitable to the wishes of the majority of them. Some compromise, of course, would have to be arranged between the man who wants to go in June and the man who wants to be away in August. But that is a detail. In some manner the customer would have to be warned and urged to anticipate as much as possible his wants and needs during the two weeks of the close-down. But there are men in the industry who believe that this may be done-men who see a possibility in the suggestion that the vacations "be done all in one swoop and gotten over."

Opinions of Dealers

Motor World has sounded a number of dealers and jobbers in the larger cities of the United States in regard to the practicality of such a system. The majority, as they first heard it outlined, were emphatic in the statement that it was not possible, at least for them. But others visioned it as a possible solution for a problem that already has caused them more or less concern.

Listen to the optimistic opinion of S. R. Blocksom, of the S. R. Blocksom Motor Co., the Philadelphia distributer of the Stutz. He said:

"This plan of having two weeks' vacation for everybody at the same time strikes me as a good one. There is nothing like having everybody feeling lively and ready to put something over at the same time and all together. It ought to freshen up business to have all the employees full of 'pep.' Take the man who has just returned from his vacation; he is full of energy and is apt to have less patience with the others who haven't had a rest. If he doesn't stop to think, he wonders what is the matter with them and why they do not have all his zest and enthusiasm. Now, if all take a rest and get recreation at the same period it ought to make a big difference in results.

"Catching up on detail after vacation is over would not hit us in the stock department, or bother the bookkeeper, for we have a cash system on parts. Another thing, there is no reason, as I look at it, why the trade could not get the public used to the two weeks' summer vacation, just as the banks have made the public used to their hours. I never heard of a bank losing money by keeping to certain hours. Neither would an automobile company, provided the trade made it unanimous, as do the banks. Especially this summer, when it is hard to get cars enough, a plan like this would be all right."

The suggestion also sounded good to John E. Ellis, manager of the Cole St. Louis Auto Co., the distributer of the Cole in that large Missouri city. Ellis approached the present system in view of the disruption at present caused by the continual absence of some of the workers during most of the summer months. His statement was:

"I think it is a mighty good idea. The present system of scattering vacations throughout the summer season is more or less disrupting and seems rather bad. The time best suited for this would be the last two weeks in July or the first two weeks in August. An emergency service could be provided that I think would be satisfactory. THE SUGGESTION SEEMS ENTIRELY PRACTICAL TO ME, AND I WOULD LIKE TO SEE IT PUT INTO EFFECT."

An Association Problem?

Other dealers were of the opinion that the industry as a whole would have to be shut down during the stated period or that undue hardship might result. These declarations brought out the possibility that the question might be taken up by dealer organizations, with the attempt made to settle upon specified times in which the trade would close its doors. Others, without detailing the exact methods to be followed, suggested that single departments might close or that more or less slack times be taken for a material cut down of the working forces.

Those who opposed the plan did so from the standpoint of service, maintaining that any let-up, even for a brief time, would be confusing to the motoring public. One Denver dealer declared that there was never a variation of more than thirty per cent in his business, between the heaviest and the dullest weeks, and that it would be impossible to choose an "idle" time for instituting the "close down." Another said that the automobile industry, particularly the service division, had become so much of a public service, similar in a way to the great municipal utilities, that a shut-up shop would be impossible.

The replies to the questions brought

a number of interesting side-lights upon the conduct of the motor trade, each, of course, coupled with the suggested plan. The Auto Equipment Co., of Denver, asked that the trade cooperate as a unit in closing business every day during the noon hour, adding, concerning the vacation idea, that "this company would welcome a solution pleasing to all concerned, during which business would be almost shut down and all vacations taken at one time."

Go In Three Groups

The March Motors Co. of Milwaukee, distributing the Mitchell and the Clydesdale and Duplex trucks, through its president, A. J. March, told of a successful method by which its workers took their vacations in three groups.

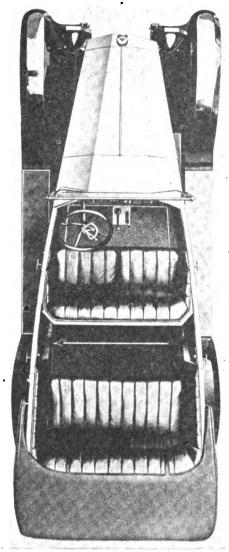
"We find that the 'outside prospect and territory' work is greatly lessened during the months of July and August, with the dealers usually demanding more cars than we can furnish," he said. "It is during this quiet season that we vacation our entire force, dividing them into three groups. The first group leaves during the first week in July. A week after their return the section group vacations, and a week after the second group returns the remaining workers go. By allowing one week between each group, the entire force then on duty can quickly adjust any accumulated business before the next group departs. We rarely find it necessary to take on additional employees or experience any great doubling up of work, having enough employees in our service department at all times to care for our owners."

A Philadelphia company has its employees draw lots as to the time they go away, thus attempting to obviate any jealousy due to possible bitterness over the periods granted. It also has a rule that no more than two persons may be absent from a department at one time. Another concern of the same city was of the opinion that the "close down" plan might have been successful this year because of the peculiar difficulty of obtaining cars.

The necessity for intelligent planning to meet the vacation difficulties is easily seen. Now is the time to review the case as it stands for 1919 and to consider it for another year. Better business demands that problems be solved when their appearance most clearly points out what that problem has been—and to-day is the time in the motor industry.

PERHAPS YOU HAVE A BETTER PLAN — ONE THAT HAS BEEN PROVEN SATISFACTORY. IF SO, WHY NOT WRITE MOTOR WORLD ABOUT IT?





Graceful body lines blending into a beveled cowl are visualized in this view of the 1920 Velis

ITH its outward appearance strikingly changed and improved, a new engine and a number of minor technical refinements, the 1920 Velie six, model 48, possesses many points of interest. There are five body styles, including 5-passenger touring, 4-passenger sport, four-door 6-passenger sedan, 4-passenger coupé and 2-passenger roadster. Prices have not yet been announced.

Distinctive body features include the adoption of a straight-line contour, blending into a high beveled cowl from which the hood tapers to meet the high radiator. Bevel-border fenders are an innovation and give a pleasing effect, and the fitting of octagonal head and tail lamps confers a finishing touch on an attractive example of the body-builders' art.

One of the minor refinements calculated to add to the driver's comfort is the depressing of the floor-boards to give additional leg-room. The doors are wide and the pleated upholstery is deep.

Turning to matters mechanical, the new Continental engine is furnished with

HERE IS

THE 1920 VELIE SIX

Five New Body Styles — Bevel-Border Fenders — Octagonal Lamps—A New Engine Designed to Use Low-Grade Fuel—Many Refinements

an internally heated vaporizer, designed to insure the perfect combustion of lowgrade fuel and thus to increase the mileage per gallon and eliminate one of the principal causes of carbon formation. Pistons and connecting rods are balanced, the crankshaft is also balanced and is carried on four bearings. All plain bearings are bronze-backed. Cylinders are block-cast and the head is removable. The crankcase is aluminum, the pistons being removable through the bottom. The oil level indicator registers pressure on a dash dial.

Valves are of extra size with ample lift to secure maximum efficiency. They are completely enclosed and are self-lubricated. The camshaft is driven through helical gears. A centrifugal pump operates the cooling system, aided by an 18-in. belt-driven fan.

Lubrication is a combination pressure and splash system with pressure furnished by a positive feed gear pump. The oil is filtered

continuously. The Rayfield carbureter is fuel-fed by a vacuum system from a 17-

gal. tank located at the rear. A gasoline gage is installed on the tank.

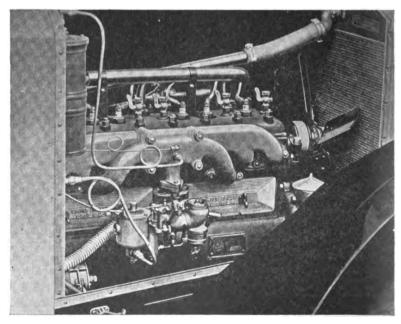
Atwater Kent ignition with semiautomatic spark advance is fitted. It also is subject to hand control from the steering wheel. Lighting and starting are by a two-unit Bijur system, all wiring being enclosed in metal conduits with fused junction boxes for inspection. The octagonal headlights have double bulbs with individual reflectors on dimmers and the cowl light is controlled by a separate switch.

Units which have been changed from those used in the 1919 Velie, in addition to the installation of a new engine, include ignition, starting and lighting systems; Atwater Kent and Bijur systems taking the place of the Remy starting, lighting and ignition used on model 38. The wheelbase has been increased slightly. The gasoline tank has also been enlarged and is now fitted with a conveniently located filler. Soft-spring oilers are fitted to insure efficient lubrication.

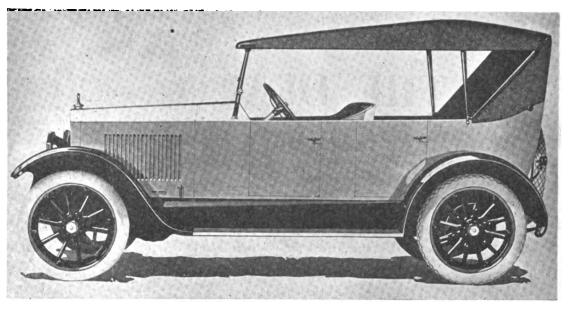
Additional splash guards, front and rear, completely protect the chassis from mud and water and every effort has been made to incorporate every item which tends to improve either appearance or performance.

Forming a unit with the engine are the Borg & Beck dry-plate clutch and the 3-speed selective gearset. The latter has heavy nickel steel gears. Drive is taken through a shaft having two Arvac

An internally-heated
vaporizer
which superheats the
mixture is
designed to
insure maximum efficiency and
enable lowgrade fuel
to be used
satisfactorily



The body of the new Velie is of straightline type, the hood tapers to meet the high radiator and the doors are unusually wide. The floorboards are depressed to give maximum leg-room in the driving compartment and there are roomy storage spaces back of the front seat and doors



universals. Both front and rear axles are of Timken make and final drive is taken through the rear springs.

Heavy 4½ in. channel steel is used for the frame. It has a single drop and narrows towards the front to give a short turning radius. The rear springs are underslung and have many thin leaves to assure easy riding. Runningboards are nickel bound and are covered with linoleum. Upholstery is genuine leather.

The hood louvres are of flush type, splash aprons protect the front of the car and there are storage places in the front seat, back and doors.

Equipment includes a top of Drednaut waterproof material, with a large plate glass window in the rear. Curtains open with the doors and when not in use are stored in a compartment back of the front seat. A 60-mile speedometer is installed and robe hanger, footrail, motor-driven horn, full tool equipment in door compartment and license plate carriers are regularly furnished. Standard colors are Velie blue and Velie green.

NEW VELIE SPECIFICATIONS

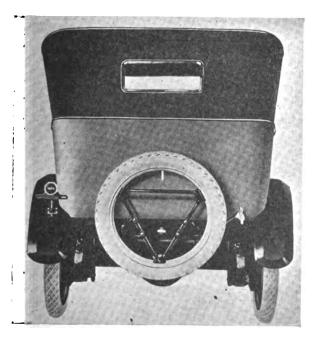
Body typesTouring, roadster. sport, sedan, limousine
_
Wheelbase115 in.
Number of cylinders6
Bore and stroke
Water circulationPump
LubricationSplash-pressure
Oil pumpGear
CarbureterRayfield
Fuel feedVacuum
IgnitionAtwater-Kent
Starting and lightingBijur
Final driveSpiral bevel
Rear axleFloating
Tires32 x 4 in.*
WheelsWood
Rear springs%-elliptic
Steering GearWorm and wheel

*33 x 41/2 tires on sedan and coupé.

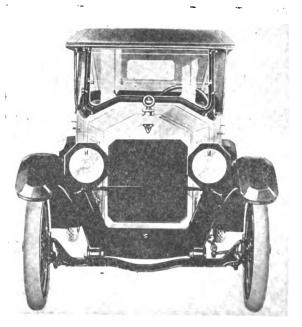
New York Body Men Organize

NEW YORK, July 31—After some twenty years of unsuccessful effort, the body builders of New York City have formed what they believe will be a successful association. The first meeting was held at the Aldine Club, Tuesday evening, when a committee of five was named to arrange the necessary details, including a constitution and by-laws, and Charles E. Hawkes was engaged as salaried secretary. A secretary who will devote his time to the work has been one of the missing links in previous association efforts.

In the call for the meeting 100 letters were sent out and 38 body builders, large and small, showed up. John Graham, of the Holbrook Co., was made temporary chairman. The next meeting will be held at the Aldine Club, Monday evening, August 9. A general invitation to the body trade has been issued. Hawkes, the secretary, is also engaged in similar work for the Association of Employing Printers.



Octagonal head and tail lights, a new radiator and bevelborder fenders are distinctive features of the 1920 Velie. Note the V tire carrier





THE DEAL THAT LABOR GETS

Presenting a Plan, as Used in Iowa, for Solving in Part the Mechanic's Problem—A Combination of Profit-Sharing and Piece-Work That a Ford Distributer Has Used

AVE you a labor problem in your garage or shop? Have you found it difficult to keep the right kind of mechanics on your payroll and do you sometimes think they are not turning out as much work as they might?

This story will relate the manner in which one dealer has attempted to solve the problem and to keep down the labor bugaboo in his place of business. Perhaps it is applicable elsewhere or perhaps there are faults that would not make it wise for general use. But in the one case, at least, results have been such that its working out has meant higher speed, greater sales and more firm loyalty—factors of business that the up-to-date dealer will always seek.

The dealer is Roy L. Igo, Ford distributer at Indianola, Iowa. Two years ago he was having more or less trouble in keeping good mechanics. Men came and went from time to time, some good and some not so good. But there was difficulty in keeping them on the job, as many dealers who have faced a similar situation have found out, to the detriment of their pocket-books and to loss in their future business.

Igo hit upon the plan of paying a minimum wage of \$27 a week, with a percentage on weekly work of a larger The idea was one that, with variations, had been tried out in other occupations, and, perhaps, elsewhere in the motor industry. In a word, it becomes profit-sharing. Each job on which a man works throughout the week is checked up before the weekly pay day and a total made of the price received by the dealer from all of this work-shop and repair rates, of course, being the only amounts so counted. If this total runs to double the guaranteed wage—this, of course, would be \$54 a week—the workman is

given half of all the amount above the minimum payment. Thus the man who had done \$60 worth of work a week, figuring on the basis of the charges to the customers, would receive a check for \$43.50. This would be divided into the \$27 minimum plus one-half of the difference between that amount and the \$60 total, or an addition to the minimum wage of \$16.50. Such a rate is, of course, easily possible in a garage that charges a flat rate of \$1 an hour for the services of its mechanics.

But the Igo scheme has another phase. It is that of the flat-rate plan, in which many charges are made upon a prearranged scale, the amount being the same in each case. This is similar to the plans outlined in recent issues of Motor World. The mechanic is paid a fixed amount on each one of such jobs, and it is up to his own ability to complete it in the shortest time possible. If he can save thirty minutes in one particular instance he has that much additional time to work on some other job, both of which count up in the weekly total, and out of which he is drawing his additional or second salary. Igo has found this a great incentive to making his workers more speedy and to keep them more alive on the work.

Not all of the work in the shop is done on the flat-rate basis. Some repair jobs are more profitable from the extra-time standpoint than are others. Consequently, the shop foreman must see to it that each man gets an equal division of the work. That, however, becomes a mere detail of shop routine, and should not be a drawback in working out any such plan.

Another advantage claimed is that the workmen will always be certain to make a good job out of each piece of work. In the event that it must be What do you think of the wage plan outlined on this page?

It has worked out successfully for an Iowa dealer and it may, perhaps, elsewhere. It has some drawbacks and its operation may not be possible elsewhere.

But in this day of labor difficulties, with more and more trouble being encountered in getting and keeping good workers, it should be considered and given careful thought.

What do you think?

Let us know!

done over again, he is forced to do it "on his own time," and loses just so much in the total for the week. Carefulness is thus added to the work.

Accessory sales are boosted by the additional phase of paying a commission on each sale that the workman effects himself. The bonus for this is 10 per cent of the sale price, and it has been found that frequently the workman can induce the owner to purchase some new piece of equipment for his car, either something that should be replaced or something new that has not been included in the car's regular equipment.

The successful working out of the plan has required co-operation between the company heads and the men. Tools designed for high-speed work are used throughout, and as much labor-saving machinery as possible placed at the disposal of the workers. It would be eminently unfair, it was thought, not to give the mechanics every aid possible in boosting their totals and in enabling them to increase their weekly figures.

With this system in operation, Igo has found it much easier to keep his men, and has been enabled to attract a better class of workmen. Naturally, loyalty to the firm paying higher wages has resulted, and brought about a more permanent force. Few "boomers" get on the Igo payroll, with consequent trouble when they leave, and few are the changes that must be made.

Igo believes he has solved many of his labor difficulties by this method of meeting his men more than halfway. It is, at least, a plan different from the customary one of a flat weekly wage, and should be attractive to the speedy and competent worker who is willing to sell his services in competition with other good men.



5 Things Your Boss Looks At In You

1—Your organization spirit

- 2—Your get-results habit
- 3—Your ability to originate
- 4—Your accuracy
- 5—Your atmosphere

By RAY W. SHERMAN

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ND now," said Reilly, as he looked up from the monthly sheet which had had no red on it for a long time, "I presume you're ready to hear some more about those five things the boss looks at?'

"Quite correct," answered young Georgie Roper, who felt particularly well to-day in that he had sold three cars in the last five days—and all with-out trades. At this rate Georgie could see clearly that vision of a real house

instead of four-and-a-bath.
"Well—let's see" Reilly looked into that little pocket note book in which were ideas, figures, a few addresses and a lot of things that would leave him rather high and dry if he lost it.

"This is our fourth shot at the old thing, isn't it?"

"Four is correct."

"Well-your answer fits in with the idea—for it is ACCURACY."
"Accuracy?"

"Yes-accuracy, reliability-anything you want to call it-dependability, doing it right the first time or any other little old name you choose to hitch to it."

"Sounds simple."

"It is SIMPLE," Reilly declared, with an earnest look at Roper, "so simple it's most mystifying to me why so many people let such a little thing as accuracy stand in the way of their progress in the world. A man who is accurate may be just that and nothing more, because he has limitations in some other quality, but a man who isn't accurate requires so much supervision that he can never be worth only about so much. He is a halfrater for life. The world is full of them -men and women. Some of them never are able to understand why they failbut the answer is simple. No one can ever give them advancement to responsible positions because they have to be watched for fear their inaccuracies will cause disaster in the business.

"There is one right way anything should be done. To do it the wrong way

is to cause all sorts of business trouble. You may assert that some people are born inaccurate and that they never can become accurate, but I disagree with you. Inaccuracy is generally nothing except carelessness, lack of attention, desire to hurry over things and get them done quickly and expectation that somebody else will check mistakes and save the situation.

"I have known people to go from inaccuracy to accuracy. They did it by concentrating on themselves and their work. A slow worker is not always an accurate worker. A man can be fast and accurate at the same time. It seems to be mostly a determination to get things right and along with it is a tremendous pride in one's workmanship.

"We have had a lot of trouble in our organization with people who turn out inaccurate, slipshod, half-finished workin the sales department, the office, the service station and everywhere.

"We have had men turn out cars on which the steering wheels were covered with grease and dirt and the cushions soiled. They KNEW better, but they lacked that pride of workmanship that nets results. The man who works on a car should be careful not to get it dirty, and, if he does get it dirty, he should clean it himself or report to the shop foreman that the car needs attention.

"We have men in the sales department—we've got some of them yet—who simply can't get things right. They simply can't get things right. put down wrong street numbers, wrong telephone numbers, wrong initials, spell names incorrectly and do all sorts of things. I know of one company that has me on its prospect list. I wrote to it once for a catalog of house furnishings. They sent me the catalog and then sent a salesman to see me. Ever since then they have persistently followed me up at intervals with literature and letters. But my name is always spelled incorrectly. It's R-e-i-l-l-y and I'm sensitive on that point-but they always spell it R-i-l-e-y.

"Inasmuch as I wrote on my own letterhead, with the name spelled out as big as life, it seems as though somebody somewhere should have had sense enough to get it right—but they didn't.
"You probably know who T. Theodore

Mann is-the big machinery maker."

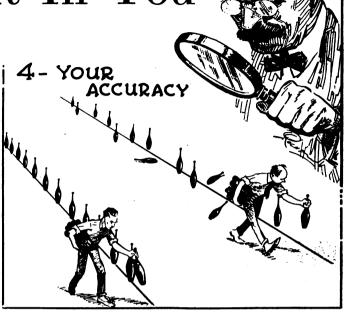
Roper nodded assent.

"Well," Reilly continued, "he almost bought a Sennett car once—just once. We had him on the list and were following him up in the usual way and it seemed as though we might land him. Furthermore, it meant a lot to us to have him driving a Sennett, because his wife is quite some chauffeur. If we sold the old man a car, there was chance of equipping the whole family.

"And what happened? One of our promising young salesmen—who was not so young but that he should have known better-got on the trail of T. Theodore and sent him a sales letter addressed to T. Mann. And what happened then? The Honorable Theodore wrote back that he had received a letter addressed to T. Mann and from the contents assumed it might be meant for him, but that the name was incorrect and he didn't feel greatly interested in the contents. Result? Foolish mistake—loss of many sales."

"If—" began Roper.

"If," Reilly concluded, "if a man wants to climb the ladder in any organization he's got to be accurate in building his own ladder. That's all.".



The Dealers' Day of Sport in Jersey



This shows a bit of the fun enjoyed by members of the New Jersey Automobile Trade Association at Lake Hopatcong, in that state, on that hot July day when the "Gone for the Day, Back Tomorrow" was hung on the doors of their various places of business. The dealers went to the lake in more or less of a parade in the morning, had luncheon at one of the hotels and spent the afternoon in different kinds of fun. Harry T. Gardner, manager of the New York Dealers Association, is the man wearing the white suit on the left of the page, while Claude E. Holgate, secretary of the Jersey dealers, is shown on the lower right



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THE LAW

By George F. Kaiser

PERPLEXED?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

A Service Contract for Garages

Editor Motor World: Will you please publish some kind of a form that will enable garagemen to have a definite understanding with car owners as to just what services they are to render or what materials they are to furnish. I think I saw such a contract in Motor World, but it was some time ago, and was for some other state. I am getting tired of having customers deny that they authorized me to do things which they most certainly did order me to do.—A. B. S., Aurora, Ill.

Answer—Your problem is an old one in the garage business and it is always difficult to get a car owner to enter into anything in the nature of a formal contract.

The best method of getting around this difficulty is to require each customer to fill out a card index form showing just exactly what services he wants rendered. It is easy to insert a provision in this form showing to whom the owner wishes to give authority to use his car. This is a valuable provision where an accident happens after some one other than the owner has taken the car out from the garage and the owner tries to hold the garageman for the damage to the car on the theory that he allowed an unauthorized person to take it out.

In case of an unpaid bill where a garageman has a contract of this kind, he is able to prove authority to do the work very easily. He also at all times has complete information concerning the owner and his car right at hand. In addition, under the heading "Memorandum," he can jot down such details of credit to be allowed the car owner, his financial standing, etc., as he desires.

The form of contract I would suggest using is as follows:

THE MODEL GARAGE, INC. 7 Main Street, Aurora, Illinois

You are hereby authorized to store, supply, repair, and furnish accessories to my car as stated on reverse side of this order. I declare that I am the owner of said car and that the license plates are registered in my name and I agree that you may have the right of lien and sale in the manner provided for by the laws of the state, including the right to retain or retake possession of said car in case of non-payment of any bill or bills.

Dated July 10, 1919.

Owner of Car.

ACCEPTED

For the Model Garage, Inc.

TH	E MODEL GARAGE, INC.
	7 Main Street.
	Aurora, Illinois
ner of	Car
oldona.	Addmogg

(Reverse side of contract.)

Owner of Car	
Shall anyone other than the owner be allowed to use the car?	

Concerted Effort Needed to Pass Lien Laws

In view of the poor showing made in the attempts to pass garagemen's and repairmen's lien laws, this year, it is advisable that the dealers get together early in the various states in order that their efforts to have this kind of legislation enacted meet with more success next time. Following is a list of states, together with the dates on which their legislatures last met and when they next convene:

State	Logt	Session	Nove	Session
Alabama	Tuly	191		192
Arizona		13, 191	o July	10, 192
			Jan.	192
Arkansas		6, 191	a jan.	192
California		191		192
Colorado	ian.	7, 191		
Connecticut	_	191		192
Delaware	Jan.	7, 191	9	
Florida		8, 191	9 Apr.	
Georgia	June	25, 191	9 June	27, 192
Idaho	Jan.	1919	Jan.	192
Illinois	Jan.	191		192
Indiana	Jan.	9, 191	9 Jan.	192
Iowa	Jan.	13, 191	9 Jan.	192
Kansas		14, 191	9 Jan.	192
Kentucky	Jan.	191		192
Louisiana	Mav	13, 191	8 May	10, 192
Maine		1, 191		
Maryland	- 4	191	g Juli.	192
Michigan	Tan	1, 191		5, 192
Massachusetts	Inna	27, 191	9 Jan.	192
Minnesote	une	191		192
Minnesota Mississippi	Ton	191		192
Missouri	Ton			192
Montana		8, 191	9 Jan.	
		6, 191		3, 192 192
Nebraska	7	191		
Nevada	Jan.	20, 191	9 Jan.	192
New Hampshire.	Jan.	191 191	9 Jan.	
New JerseyJ	an.	1915	Jan.	
New Mexico	Jan.	14, 191	.9	192
New Mexico New York No. Carolina	_	191	.9	192
No. Carolina	Jan.	191	9	192
No. Dakota	March	1, 191	9 Jan.	192
Ohio		191	.7	
Ohio Oklahoma	March	29, 191	.9	192
Oregon	Jan.	13, 191	9 Jan.	10, 192
Pennsylvania Rhode Island		191		192
Rhode Island	Jan.	191		192
South Carolina	.Jan	4, 191		4, 192
South Dakota	Jan.	8, 191	.9	192
Tennessee	Jan.	6, 191	9 Jan.	192
Texas		191	9	192
Utah	Jan.	13, 191		
Vermont		8, 191	9 Jan.	192
Virginia		191	8 Jan.	
Virginia Washington	Tan.	101		192
West Virginia	Tan	191		192
Wisconsin	·	191		12, 192
Wisconsin Wyoming	Ton	14, 191	9 Jan.	
TT JUILLIE	van.	37, AFE	o sall.	192

Necessary to Post Maine Law

Editor Motor World: Please send me notices to put up in my garage, where I have cars stored, so that if I have a car with a storage or repair bill on it, I can hold the car. I have had trouble that way, and had to give up cars where I have not had any notices. I thought, perhaps, your lawyer could make them, or, if you do it yourself, I wish you would. I would like to hear from you about it, anyway.—S. J. Oakes Co., West Enfield, Me.

Answer—In Maine garagemen must post a copy of the following law in a prominent place in their garage before they become entitled to protection under the act:

PROTECTION OF GARAGE KEEPERS

(Revised Statutes, Chapter 128, Sec. 5)
Sec. 6. Defrauding owner of garage; printed copy of this section to be posted in garage. Whoever puts an automobile in a public garage or other place where automobiles are stored for hire, and without having an express agreement for credit, procures supplies, accessories or accommodation for himself or said automobile, and with intent to defraud the owner or keeper of said garage, removes or causes to be removed any such automobile from such garage without paying the reasonable charges due for repairs, supplies, accessories and accommodation furnished thereon, shall be punished by imprisonment not exceeding \$100. In order for the owner or keeper of such a garage to obtain the benefits of this section, a printed copy thereof must be posted in some conspicuous place in said garage.

The notice which you must post up in your garage must contain a copy of the law. I understand that the Secretary of State in Maine has copies of this law printed up for this purpose. If you write to him at Augusta he will undoubtedly send you copies.

Decision Regarding Lien Law

That if a motor car owner obtains possession of an automobile upon which a garageman has a lien without the consent of the garageman, the lien is not destroyed, but continues in force and effect after the garageman regains possession of the car, is the decision in a late New York case.

The buyer of the car had defaulted in payment of promissory notes, which he had given as part of the purchase price of the car. The seller was held to be entitled to take possession of the car and sell it, provided that he credit the buyer with the balance remaining after charges and expenses were paid. Horowitz vs. Hurlburt, 176 N. Y. S. 514.



Automotive Equipment

MYERS SELF-CLEANING SPARK PLUG

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HANNANGAN KARATI INTO KRANGAN KARATI KARANTAN KARAMATAR KARAKAN KARATAN KARAKAN KARATAN KARAMATAN KARATAN KARA

This spark plug is designed to clean itself automatically from deposits of soot and oil, thus preventing the formation of carbon and its attendant troubles. The plug has an inner chamber in which a number of small porcelain pebbles are placed. These are forced up and down by each impulse of the engine, the roughened surfaces cutting away deposits, keeping the insulator and inside walls clean. This results in a perfectly operating spark plug under all conditions of service. -Myers Self-Cleaning Plug Co., Toledo, Ohio.

WALKER AUXILIARY RADIUS ROD FOR FORDS

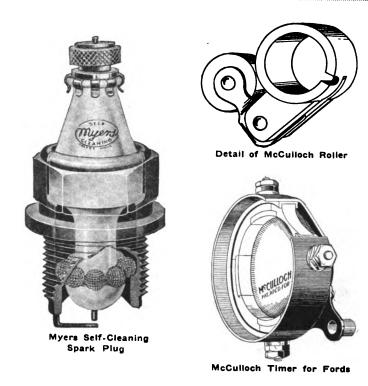
This rod is designed to reinforce the regular Ford radius rod and to eliminate all chance of bending or breaking. No. 701, which clamps to the front axle, is designed for Ford trucks and delivery cars. It is made of solid rods of %-in. steel, with malleable clamps. Weight is 12 lb. and price is \$4. Other types for Ford passenger cars are No. 702, 703 and 733 made of angle iron and priced at \$2.50, \$2 and \$2 respectively. No. 704 is made of ½-in. tubing and also costs \$2.—Walker Mfg. Co., Racine, Wis.

UNIVERSAL SPARK PLUG INTENSIFIER

This device consists of an adjustable terminal point set in a glass cylinder which magnifles the spark. It is attached to the spark plug as shown and is designed to insure perfect operation under all conditions. It is, in effect, an additional gap which tends to intensify the spark. As this gap is visible through the magnifying glass cylinder it also affords opportunity to check up the action of each individual plug. -Universal Mfg. & Sales Co., 552 West Harrison Street, Chicago.

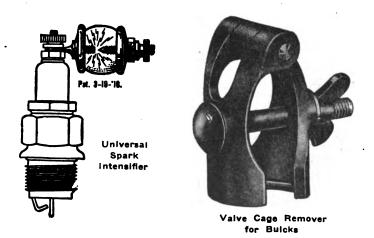
VALVE CAGE REMOVER FOR BUICKS

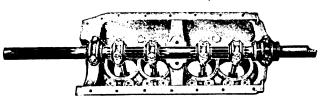
This device is designed to facilitate the removal of Buick valve cages in order to grind the valves. The tool is strongly made and is applied after the rocker arm is removed and the ring unscrewed. It is advisable to pour a little kerosene on the top of the valve cage after the ring is removed and to give it time to soak in. Price \$1.—Osborne & Stephenson Mfg. Co., Plainville, Conn.





Walker Radius Rod





Lewis Combination Aligning Reamer

McCULLOCH TIMER FOR FORDS

The shell of this timer is of one-piece construction, finished smoothly inside to insure a frictionless track for the roller. The ring is wide and deep and is made from bone fiber. It is enclosed and gripped by a metal housing, which in turn is pressed into the shell. Contact points of shell and roller are made of special steel and the brush assembly is accurately machined. The roller is made of carbon steel, machined and hardened and fiber inserts are installed between the contact screws to prevent short-circuiting. This timer may be installed on any Ford and is also suitable for the Fordson tractor .- A. P. McCulloch Machine Co., 216 High Street, Boston, Mass.

IMPERIAL COMPRESSION COUPLINGS SET

This is a case containing a handy assortment of Imperial compression couplings for the use of garages and repair shops. The couplings are used for connecting up tubing for gasoline, oil and air lines on cars, trucks, tractors, motor boats, etc. The case measures 17 x 91/2 x 2 in. and contains a full assortment of couplings, sleeves, bushings, unions, tees, elbows, etc., in all the popular sizes. No. 110-F costs \$8 and 111-F with a larger number of fittings is \$10.—Imperial Brass Mfg. Co., 1200 West Harrison Street, Chicago.

LEWIS COMBINATION ALIGNING REAMER

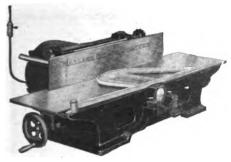
This equipment is designed to perform the work of reaming Ford connecting rods and main bearings. It is stated that by its use all the bearings of the Ford engine can be made a perfect fit in 11/2 hours. The combination outfit sells for \$35. A reamer for connecting rods only sells for \$25 and the cost of an operating handle is \$2. The reamer is designed to keep absolute alignment in operation. - Lewis Tool Co., 915 Washington Avenue South, Minneapolis.

S & P VALVE GRINDING COMPOUND

This is a fast-cutting valve grinding compound which is stated to be perfectly free from acids and to be unaffected by climatic conditions. It is put up in 5-oz. cans at 40 cents and also in 1-lb. cans for repair shop use.

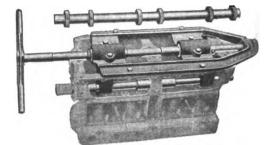
—S & P Mfg. Co., 163 Columbus Avenue, New York City.





Wallace Bench Jointer

Triple Airless Tire



Storm Babbitting and Boring Tool

WALLACE BENCH JOINTER

This portable machine is designed for use in wood-working It is self-contained, shops. having its individual motor, lamp cord and plug, and is ready for operating at any time from an ordinary lighting cir-An adjustable fence cuit. mounted on the motor facilitates speedy adjustment and the cutter head can be taken out and replaced in a few seconds. Ball bearings are used on all motor and cutter head bearings, thus reducing friction and prolonging useful life.—J. Wallace & Co., 1401-1405 West Jackson Boulevard, Chicago.



This gasket is intended to be installed in the intake manifold just above the carbureter, taking the place of the regular gasket fitted between the carbureter and the manifold flange. Two sheets of mesh gauze wire are set in cone shape to cover the central opening in the gasket. These are so arranged that one set of meshes cross-cuts the other. This combination mesh screen is designed to atomize and assist in the vaporization of the gasoline mixture and thus make it more efficient. Price \$2.-J. W. Warren. San Antonio, Texas.

UNIVERSAL OFFSET SPEED WRENCH

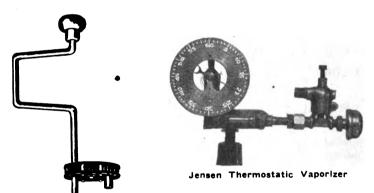
This wrench is designed to operate on the connecting rod nuts of the Ford engine. It has a 3-in. offset, giving access to the fourth nut, which is hard to reach with a more normal tool. The wrench is of steel and is tested to a 185-lb. pull. Sockets are machined and casehardened and are interchangeable. Price \$4.—Universal Mfg. Co., 2633 Randolph Street, Lincoln, Neb.

TRIPLE AIRLESS TIRE

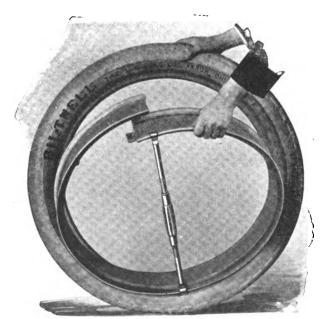
This airless tire is claimed to be puncture and blow-out proof. It consists of a tread and casing in which is incorporated a bridge-piece of special form, designed to provide chambers which combine to render the unit resilient and to assist it in absorbing road shocks, etc. It is made with clincher, straight-



Warren Vaporizer



Offset Speed Wrench



Universal Rim Tool

side and universal beads which are locked in position on the rim by the interposition of the bridge-piece. — Triple Airless Tire Co., Manorville, Pa.

STORM MAIN BEARING BAB-BITTING AND BORING TOOL

This tool is designed to make a new main bearing for the Ford engine in the exact original position and precisely similar to the original bearing. An aligning arbor which passes through the camshaft bearing holes keeps both the babbitting arbor and the boring bar in correct position. The babbitting arbor is ¼ in. smaller than the crankshaft, allowing space for the pouring of the metal and providing a surplus of the latter to be removed by the four cutters of the boring bar. Pouring blocks are provided .-Storm Mfg. Co., Thompson, lowa.

JENSEN THERMOSTATIC VAPORIZER

The function of the Jensen vaporizer is to inject water vapor into the combustion chamber of the engine. This. when passed through the device, produces oxygen and hydrogen which tend to prevent the depositing of carbon and to increase the power of each explosion. It is also claimed that the use of the device prevents pre-ignition, overheating, pitting and warping of valves and burning of cylinder oil. It is designed to produce just the correct temperature inside the engine and to automatically control it at the proper point. No adjustment is necessary. Price \$5.-Halliwell Bros., Los Angeles, Cal.

UNIVERSAL SPLIT RIM CON-TRACTOR AND EXPANDER

This tool is designed to operate quickly on all sizes and makes of split rim. It unlocks, contracts and removes the rim in a few seconds and also expands and relocks it when the tire has been fitted in position. The operation consists simply of clamping the tool on the rim, twisting the buckle to expand or contract and removing or replacing the tire, as the case may be.—Mossochs Co.. 9801 Manor Avenue, Cleveland.

Repairshop Shortcuts

From Motor World Mechanics

No. 2233—A CONVENIENT WORK BENCH

A good arrangement which tends to speed up work by keeping small tools, etc., in a methodical manner is a bench fitted with drawers having partitions as shown. These are in the lower half of each drawer. A removable tray occupies half the upper portion of each.—J. A. Wilson, South Berkeley, Cal.

No. 2234—A HANDY FLANGESPREADING WEDGE

This flange-spreading wedge is made from a short piece of an old flat file from which the temper has been withdrawn. It is then made thin and fanshaped and a simple handle formed by splitting a piece of pipe is attached. This will do the work rapidly and without damage to the flange.—C. H. Willey, Concord, N. H.

No. 2235—A PIPE ATTACHMENT FOR OFFSET SCREWDRIVER

By the use of this simple pipe attachment a right-angled or offset screwdriver may be converted into one of powerful lever type. A piece of pipe of suitable section is simply slotted on one side and this end is slipped on the screwdriver, as shown. The top of the pipe is furnished with an ordinary doorhandle.—C. H. Willey, Concord, N. H.

No. 2236—HANDY USES FOR STEEL WIRE AND BABBITT

Stiff steel wire and some old babbitt metal were utilized in the production of these articles. They were made for use in the shop and have their places on the order desk and the workbench. The stand to the left is used as a support for the order-book; next comes a bill-spike and the other two are used for supporting small pieces of work at the bench vise, etc. The one to the right sometimes acts as a stand for a watch—C. H. Willey, Concord, N. H.

No. 2237—AN IMPROVISED BUSHING LAP

A quickly-improvised method of lapping out small bushings consists of a belt-lace or narrow belt driven from a small motor. This belt is run around the outside of the bushing, as shown, and its tension is determined by drawing back the lapping arbor.—C. H. Willey, Concord, N. H.

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what a satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay you a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

No. 2238—CRANK HANDLE FOR SOCKET WRENCH

Where there are a number of nuts of one size to be handled, the work can be expedited by the use of a crank attachment made from a piece of pipe, a hand grip piece and a piece of small round rod. The pipe is bent to the crank size desired and a piece of round rod is fitted in one end, for use in the holes of the socket wrench. The tee rod of the wrench is removed and this device is slipped in its place.—C. H. Willey, Concord, N. H.

No. 2239—A SIMPLE PISTON VISE MADE OF BOILER PLATE

These jaws, which are designed to attach to a regular bench vise, are formed of two small pieces of ¾ in. plate obtained from the junk-heap of a boiler shop. They are cut and riveted, as shown, and a hole is bored in the center. This hole should be of the size of the pistons to be held. The plates are then cut in two and the ends of the upper plate are heated and bent to fit the vise.—C. H. Willey, Concord, N. H.

No. 2240—AN ENGINE-COMPRES-SION TESTER

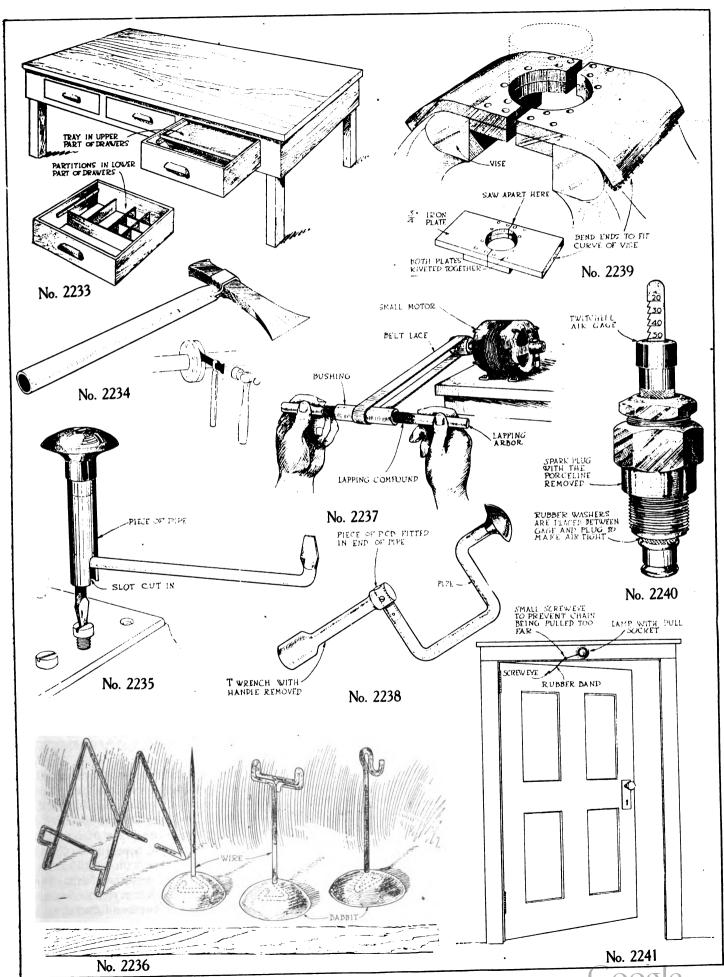
Remove the porcelain from a spark-plug; then take a Twitchell air-gage and fit around its lower end two or three washers made out of an old inner tube. Set this down in the body of the plug, in the position formerly occupied by the porcelain and screw the stuffing nut down to make a tight joint. If this device be screwed in a spark plug opening and the engine be cranked, the gage will register the compression of the cylinder in pounds.—Otis Gibbons, Roodhouse, Ill.

No. 2241—IT "SAVES TIME AND PROFANITY"

The following device was evolved to save trouble in groping for the lighting switch in a small room which has no natural light. A chain socket light was fixed over the door. To this was attached one end of a rubber band which had been passed through a screw eye after the other end had been fastened to the door. The screw eye was so located that when the chain had been pulled far enough to turn on the light, a ball at the end of the chain engaged in the screw eye and forced the rubber band to stretch when the door was opened. The effect was that when the door was opened the light was switched on and when re-opened to leave the room it was switched off .- G. H. Simons. Montevideo, Minn.

CHANGE IN DETROIT FIRM

DETROIT, July 31—The Martin Motor Sales Co., one of the city's largest used-car sales companies, has been sold to Jacob, Michael and David Weisman. Under the new management the used car department will not only be continued, but the Michigan sales and distribution of the Moore passenger cars will be handled as well.



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Editorial Observation

Are the Street Cars Going?

HE other day in an eastern city a lightly loaded street car went by. Said an automobile man: "Its day is doomed. The motor car is the answer." He may have been right or wrong, but it's something for dealers to think about.

In many cities there have been agitations for increased fares. Many cities have granted them. In some cities street car patronage has fallen off when fares went up. And everywhere automotive transportation is gaining, while street railway traffic is, to some extent, suffering.

In Boston the fares went to eight cents and then to ten cents. At eight cents there were 900,000 fares a day, bringing in \$72,000 a day in revenue. When the fare went to ten cents the daily fares dropped to 600,000, which brought in \$60,000 a day, a daily loss to the street railway companies of \$12,000—\$500 an hour.

At the same time the steam trains running into Boston began to gain somewhat and there was a demand for city housing as the population set out to alter its place of living. Is it not safe to assume that this situation caused some wavering prospects to decide that they would buy low-priced or used cars rather than spend the rest of their lives supporting a street car company?

To-day the whole world has a taste of motoring—and who likes to ride in a street car? The man who can buy a car has one—and rides almost as cheaply as he did in the street car. A boost in fares is a fine chance for some comparative automotive-street-car figures in dealers' local advertising.

Furthermore, the motor bus is a factor not to be overlooked. An omnibus can carry as many people as a street car, and faster and more comfortably. In cities where bus lines can be established there is a field for sales which dealers should investigate. The street car is, any way you take it, a relic of early transportation days. Some day when there are no street cars, think how people will look back and smile at the early days when a broken-down coal truck on a track kept thousands from getting home to dinner!

Motorized apparatus has chased the horse out of the fire departments. The manufacturer of a wellknown brand of fire apparatus says the manufacture of horse apparatus has long since been discontinued. All it amounts to now is a replacement business on rapidly deteriorating horse apparatus. All new apparatus is motorized.

And even on the railroads motor cars are replacing standard railway equipment. On some of the roads of the West trucks are fitted with passenger bodies carrying 30 people, equipped with flanged wheels behind and pony trucks in front, and they skim over the roads with a facility never equalled by the steam equipment. Furthermore, on roads where one or two trains a day have been the rule more frequent service can be given because the motor cars operate so cheaply.

In all this furmoil about higher fares there is a major element of corporation profit and economic reason, but isn't it a thought-stimulating act to ask oneself just how much the motor car has to do with it all?

Watch Out!

T appears that east is west when enemies of the motor truck—quite often railroads or their friends—get into action. A few weeks ago a law was enacted in California placing operation of trucks under the State Railway Association. Now the Boston Traveler, a newspaper which has carried thousands of lines of motor car, truck and accessories advertising, suggests editorially taxing trucks "to the full extent of the damage they cause," terming them destructive of the highways and hinting at a possibility of diverting them to railroad tracks for operation on a rental basis.

In California the anti-truck movement stirred up a hornet's nest among the dealers and prompted the

open charge that the railroads were behind the bill. In Boston the dealers have referred the case of the *Traveler* to the National Automobile Chamber of Commerce, having been thoroughly aroused by the attack, following closely upon the heels of legislative action which raised truck license fees 100 to 200 per cent at the conclusion of a vigorous fight by the trade against a bill which, in its original form, would have practically prohibited truck operation by a fee advance of 1,300 per cent over former figures.

The California law classes as public utilities trucks engaged in freight and passenger transportation between cities, imposing franchises, fixed routes and carrying charges and definite running schedules. If

the statute is upheld against the opposition of the truck interests it will wipe out free lance competition, putting the lines in control of a few corporations and, the dealers say, eventually re-establishing the old railroad monopoly.

The Boston editorial, after commenting on the inroads into railroad incomes made by automobile touring and freight carrying and declaring that the interests of railroad investors must be protected, says:

Railroad men, with all their perplexities, are thus facing a new and sizable problem. They would like to abolish the motor truck. Knowing they cannot do that, they are scheming to have it regulated. * * *

Motor trucks are destructive of the highways. Incidentally, they interfere with lighter vehicles. Taxing trucks to the full extent of the damage they cause may afford a partial solution. Possibly an arrangement for diverting the trucks from the highways to the railroad tracks at proper rentals will be devised. At any rate, the competition of the motor truck has become an important factor in the railroad puzzle.

This raising of hands against the motor truck in states separated by the breadth of the land suggest the possibility of like threats in intermediate states. It emphasizes the need of watchfulness, by national, state and local organizations, to detect and oppose class legislation.

Build Now for Less Prosperity

N no sense is what follows in this editorial to be taken as a prophecy of calamity. It is just a word of advice. It is good advice even if the country should continue at the big strides that are to-day marking its course.

The point is this: In the days immediately following the termination of hostilities things began to move industrially in America, some things faster than others. The movement has continued and is growing more rapid. New companies are being formed, new promotions are being launched, money is high and everything seems prosperous.

The prosperity is destined to continue for as far as any one can see with distinctness. We have always had reactions, "slumps" and financial adversity, but to-day no one ventures to prophesy such a thing. Everything is moving in good order and with strength.

But here is the "but" part of it. Some day there may come a reaction. Some day it may not be as easy to make money as it is to-day. If that day should come, and it probably will some time, you will be glad if you are able to go through the period without unfavorable results.

The advice we started to offer, therefore, is that in these days of great prosperity the dealers, jobbers, and garagemen begin NOW to get their businesses on the safest of foundations. Build strongly, wisely and well. Use the revenues of to-day and the lack of pressure of the adverse sort to strengthen your business institution so that it will be ready to withstand any shock.

Look back a few minutes to the last two years, and imagine what would have happened had the war continued two years more. It stopped at a most fortunate moment for the entire automotive industry. In other countries many dealers went out of business and now must build anew.

As you look backward into a real period and forward into an imaginary period there come to your mind conditions which it was difficult to face. If adversity ever comes again, probably those same conditions—plus others—will create embarrassment.

Wherefore, get ready for them, even if they never come.

Establish in your business a real cost system, one that will tell you at a day's notice whether your business is going up or down; one that will let you know in just what department a physician is needed and just what parts of your business can be shut down that others may be benefited. An accounting system is not enough. A cost system is essential.

Install throughout your organization methods of efficiency. Do not pay too high a price for your profits. Get more for your money.

Build a personnel of capable people. Train men and women who can take hold and render big service when the demand is made.

In other words: Imagine that the need is great, and get ready for it. Then, if the need ever comes, you will be ready. If it never comes you will be much better off.

So prepare yourself to-day that if adversity ever comes you can reach into a drawer of your desk and draw forth an envelope marked, "What to do when adversity comes." And meantime, forge ahead and build the biggest, strongest, most prosperous business in your part of the world.

As we said at the beginning, this is in no wise a prophecy of adversity. We cannot imagine any such thing for some little time—if it ever comes at all. But the efficient business is a ready business, and what this trade needs is efficient business.

How About Coal?

WHEN winter comes we always have a coal problem, and when winter has gone we forget all about it. If there is any likelihood of there being a coal problem anywhere, the time to think about it is now, and not next winter.

Meantime why not investigate the possibilities of other forms of fuel for heat and power? A few kerosene burners have made their appearance. And there may be other local possibilities.

SCIENTIFIC CONSTRUCTION

GARAGES

SHOW ROOMS

REPAIRSHOPS

Plan No. 1

HAD BOLD GORDON EST. O AR DE LA DESCRIPTION DE L'ANTICHE DE L'ANTICHE DE L'ANTICHE DE L'ANTICHE DE L'ANTICHE D

Two-Story Building on Corner Lot 68 x 180 Ft.

Character of Business—Sale of cars and accessories.

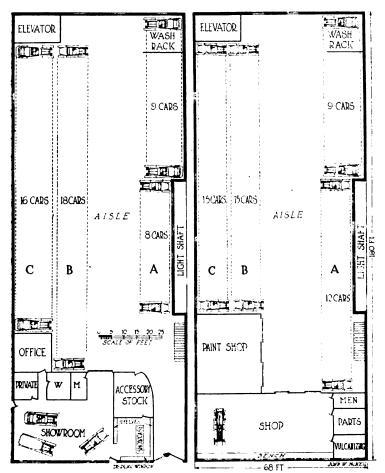
Details Wanted—Two-story building, 68 x 180, on corner lot; on first floor, accessories and accessory storage, parts room and stockroom, ladies' waiting room and rest room; vulcanizing room and paint shop; second floor repairshop and storage of cars. Name—John McKeil, Selma, Ala.

Answer—This layout has been drawn to meet your needs and requires little explanation except that relating to the car arrangement in the garage. For a building 68 ft. wide it is impossible to arrange the cars so that each one faces directly on the aisle without wasting a great deal of valuable space. For this reason, and also because the standard

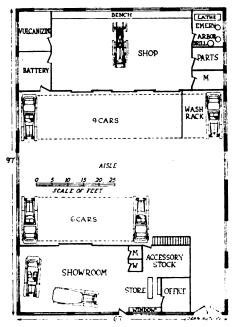
MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

two-row, single-aisle arrangement is less economical than the three-row, singleaisle layout, the latter is shown. It has



Plan No. 1—First and second floors of a two-story building designed for John McKeil



Plan No. 2—Logan Auto Co.'s garage on a plot 67 x 97 ft.

the disadvantage that cars in rows C do not face directly on the aisle. In practice this is not serious, as many garage owners will testify. Cars in rows B should be those which go out early; those in rows C, ones which go late; and those in rows A, ones which cannot be so classified. In which row a car should be placed is determined by asking each driver when he comes in for the night what time he is going out in the morning. Occasionally this system requires the shifting of a car in order to get another one out; but this does not happen often enough to be objectionable. The light shaft was omitted, but its inclusion will not alter the layout.

Plan No. 2 Addition to Garage

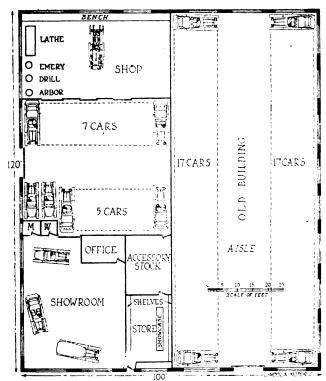
Character of Business-Supplies and re-

Details Wanted—Showroom, stockroom, office, accessories, tattery and vulcanizing shop, toilets, and small sleeping room over office.

Name—Logan Auto Co. Waynesville, N. C.

Answer—This plan fulfils your requirements It was not thought necessary to draw a plan of the sleeping room, although the stairway leading to it is shown. The stairway to the cellar,

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Plan No. 4—New one-story building and plan for remodeling of old structure, designed for the Lincoln Motor Co.

wherein should be placed the furnace and coal bin, may be located directly under this stairway.

The rear row of cars in the garage will not interfere seriously with access to the shop provided these cars are the ones that are usually out during the daytime. The shop has a series of sliding doors, so that a car may be placed directly in any position desired.

Plan No. 3

Garage on 75 x 128 Ft. Plot

Character of Business—Passenger cars and trucks

Details Wanted—Showroom for four cars and a truck; on first floor, accessory room, stockroom, toilets, rest room, and double wash rack; second floor storage and paint shop; runway

from basement to alley; front half of alley for repairshop.

Name—Spangler Motor Co., Joliet, Ill.

Answer—We cannot furnish complete plans and specifications, but are showing a layout.

We believe that you are making a mistake in placing the shop at the front end of the basement, as it will have to depend largely on artificial light; ventilation will be poor and there is likelihood of dampness. A better place for the shop would be at the rear of the first floor or at the front or the rear of the second.

Plan No. 4

Plans for New Building and Rebuilding of Old

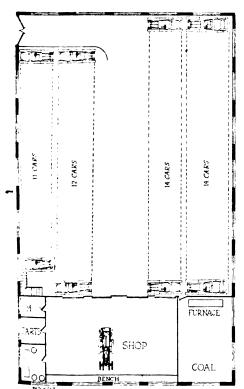
Character of Business—Sell Fords and Fordsons and furnish service.

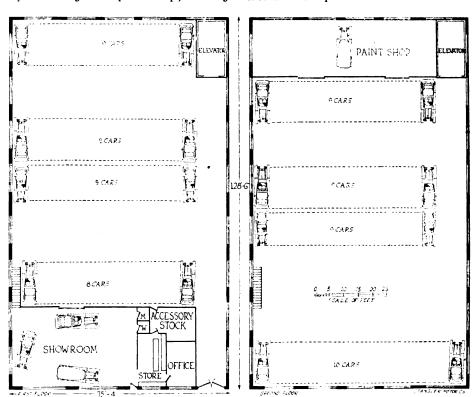
Details Wanted—Plan for new one-story building adjoining old structure and suggestions for rebuilding latter; workshop, accessory room, parts room, heating plant and paint room; air, water, gas and oil tanks; offices and showrooms facing main street.

Name-Lincoln Motor Co., Lincoln, Kan.

Answer—After due consideration we decided that the best arrangement was to use the old building entirely for storage and concentrate showroom, accessory store, stockroom and shop in the new building. You will note that the accessory and parts stockroom is conveniently arranged both with respect to the store and the shop.

The questions regarding departmentizing your business and special Ford equipment for your shop have been referred to the departments of Motor World which specialize on these matters.





Plan No. 3—Two-story garage 75 x 128 ft., designed for the Spangler Motor Co.

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LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

The Wichita Demonstration

Editor Motor World: Resurrecting an ancient and threadbare expression for the purpose of summing up briefly our impression of the Wichita National Tractor Demonstration, it struck us as a pertinent exemplification of that old saw, "All dressed up and no place to go."

The weather was excellent, the ground was in good condition, the exhibits were attractive, but that important individual for whose benefit and edification national demonstrations are supposed to be conducted was, in point of attendance, a scarce article—a rara avis.

Granted that five thousand agriculturists were at the demonstration on The Big Day, that showing was poor enough when it is considered that the demonstration was national in scope. To be profitable, from an advertising or sales standpoint, at least five times that many should have been in attendance. Considering the horde of advertising men, representatives from various publications, engineers, factory executives, salesmen and natives of Wichita, verily the number of farmers was exceeding slim in comparison.

No one dare say that the small attendance was due to insufficient preliminary advertising. Rather it was due primarily to the fact that nowadays it isn't necessary for a farmer to travel a hundred miles to see a tractor pull a plow. If the farmer hasn't a tractor of his own, it is a simple matter for him to step over to his neighbor's field and, we are proud to say, the last few years at least, to see a very creditable job of plowing.

After all, why is a demonstration? A demonstration usually infers the introduction of a new, unfamiliar or untried product. The telephone needed a great deal of demonstration before it was generally accepted by the citizens of the country, but no one would think of demonstrating the telephone to a large bunch of prospective users to-day. An aeroplane demonstration at the present time would draw a large crowd, but in ten years Mr. Average Citizen may be cranking one up in the morning preparatory to leaving for his office. Years ago the national tractor demonstration had its place. People were curious and came for many miles to see a machine they had heard about, but, perhaps, had not seen. But now it is different. No, it is not necessary to hold a large demonstration to prove the fact that a tractor will pull a tractor plow or other implement, and that, after all, is about all that a

tractor demonstration, as followed out to-day, demonstrates.

We sometimes wonder what psychological effect a large tractor demonstration has upon the average farmer. Isn't it true that perhaps he considers the tractor in the experimental stage because the manufacturers insist on demonstrating his machines from year to year? It is logical that in his mind there should exist the suspicion that tractor manufacturers aren't sure that they have the right machine. Otherwise, he reasons, why should they deem it necessary to hold demonstrations which, ordinarily, it is understood are primarily for the purpose of introducing new machines or new methods?

At this period there is no question but that large demonstrations create in the minds of many farmers the impression that the tractor is not a practical reality, but rather is more or less of an experiment. The manufacturer proclaims from the housetops, "So you fellows don't think tractors are a profitable investment, eh? We are going to arrange a demonstration to show you that they are." Why suggest the idea to the farmer? In the interim between demonstrations he may have gotten over his suspicions. Why bob up serenely every year with a negative suggestion?

It may be, good friends, that there are some people who can trump up a plausible excuse for a national demonstration—but they are sadly in the minority.—H. M. Railsback, Director of Publicity, Deere & Co., Moline, Ill.

Another Outing

Editor Motor World: I want to compliment you on the Motor World. Every time that I am puzzled over something that comes up in our business I look in the Motor World and nearly always find an answer to my question. We notice that you have printed accounts of outings of different concerns and we would like to tell you about one we held on Thursday, July 10, at Becket, Mass.

The affair was in charge of P. A. Williams, assisted by H. R. Augur, sales manager of the company, who kept things moving from the start to finish. The guests of the occasion were H. D. Day, New England representative of Dodge Brothers; Rev. Joseph Sullivan of Chicopee, and Mr. Charles Anthony, representing the Continental Guaranty Corp. of New York.

First the party went by automobile to Camp Becket, where the State Y. M. C. A. conducts a large summer camp. After being shown all through the camp, outdoor sports were in order, chief of which was a baseball game between the sales and service men, the former winning by a score of 5 to 3. Fred Shaw, director of service, won the pipe race.

After the sports all went to Bonnyrig, one of the most beautiful spots in the Berkshires, for dinner. Williams presided and, after the good things had been disposed of, Day gave a talk on Dodge production plans for the coming season, preparing the dealers for the large number of cars that would soon

A Suggestion for a Letterhead

THE SUNFLOWER TIRE SHOP

C. H. FERGUSON, Manage

New and Used Automobile Tires and Tire Repairing
11 South Mith Street
Kansas City, Mo.

Editor Motor World: I am starting a tire repair shop and would like a suggestion for a letterhead. Will do all kinds of repair work and have new and second-hand tires for sale. Also would like an idea for a card or tag to leave in a car on the street. Expect to have a man to look for tires that need repairing, on cars that are being used.—Sunflower Tire Shop, Kansas City, Mo.

begin coming into this territory. Sullivan spoke of the growth of the business of selling motor cars, the change in the type of men selling cars and the new relations between the dealer and salesman.

After dinner, everyone went out on the broad piazza of Bonnyrig and enjoyed the beauties of the Berkshires. Before the party came home, Day was presented with a leather belt with a silver initial belt-plate.—Williams Motor Sales Co., P. A. Williams, Jr., President, Springfield, Mass.

If You Lose a Ring

Editor Motor World: Have been taking Motor World for some time now and it sure is "some little old paper" all right as most of them say; you can't stop in the middle, you just have to read ads and all. I sure do enjoy the Reilly stories. You sure do put the truth where it attracts attention all right and by following them anyone with a grain of gray matter in his head can correct many of his errors.

Also that series on Better Mechanics on Ford Repair is O. K. Shooting Troubles and Repairshop Shortcuts come in for their share of study.

Maybe this will be of use to some of the readers of Motor World. Sometimes when tightening Ford connecting rods from under the car a rod will slip off the crankshaft and let the piston down so the bottom ring is below the cylinder. To save taking the ring off and also replacing the cylinder head after the piston has been taken out of the top, just slip an old ring over the piston from the bottom and when this is sprung over the ring on piston it will compress it so the piston will readily slip up, thereby saving lots of work and time.—Leland E. Wade, Hilliard, Fla.

Informs the Dealers

of Legal Hazards

Keeping its dealers informed on laws and ordinances against which they might bump and thus hamper themselves in sales, is part of the policy of some Pennsylvania distributers. On account of the many peculiar, restrictive regulations that have been cropping out in this state, the plan is regarded as quite necessary.

The Overland-Harper Company, 16 South Twenty-first Street, Philadelphia, distributer in this territory of Overland and Willys-Knight cars, has been making a practice of this. Here is a sample circular letter just issued to its dealers which, from its usefulness and general form, might prove a good tip to others in the trade:

"The Cox bill, designed to regulate the sale of second-hand motor vehicles in Pennsylvania, became a law July 1, 1919.
"It is very important that every dealer who purchases or sells used cars familiarize himself with the new law and follow it

closely.

"Printed forms for use in connection with the new law are now being sent out, and may be obtained by writing to the Automobile Division, State Highway Department, Harrisburg.

"It will be necessary that dealers observe the provisions of the law on all used car purchases and sales, so the sooner you get the forms, the easier will be the task. Forms

must be made out and \$2.50 paid on every purchase since July 1. Your customers must do the same on each used car sold by you since July 1. You should supply them with the form.

"Here are three very important provisions

"Here are three very important provisions of the law:

"First—Each dealer who buys or sells any used cars must file application for a license from the State to deal in used machines. Cost \$100. (Form No. 160. Furnished by State Highway Department, Harrisburg.)

"Second—Every purchaser of a used car, dating from July 1, must fill out a form, N-159, in duplicate, under oath (John Doe copy attached). File one copy with State Highway Department, Automobile Division. Harrisburg, accompanied by a fee of \$2.50 send other to Office of Chief of Police in city or borough where application was made otherwise to the Office of Clerk of the Court of Quarter Sessions of county in which acquisition was made. (If you 'trade in' a car you are the purchaser.)

"Third—Don't buy or trade in a used car until the old owner proves he has paid for it and gives you the original 'bill of sale.'

"In other words, if you buy (or trade in) a car, the person who sells it to you must furnish you with a statement and description of that car, under oath. Use Form N-159. As the purchaser, you send the original to the State Highway Department with the \$2.50 fee.

"If you sell the car, you are obliged to

inal to the State Highway Department with the \$2.50 fee.

"If you sell the car, you are obliged to give the purchaser a similar statement in duplicate, under oath. (Form N-159.) The purchaser then files an affidavit with the State, along with his check for \$2.50.

"The purchaser, whether dealer or individual, always pays the State the \$2.50 fee when he buys a used car.

"If you have not received forms, ask the State Highway Department to send them to you."

Could anything be more helpful and explicit in covering the situation?

WILL PRODUCE DOBLE CARS IN CHICAGO

DETROIT, Aug. 1—Doble steam cars will be made by the Amalgamated Machinery Corp., Chicago. This concern now has the exclusive manufacturing

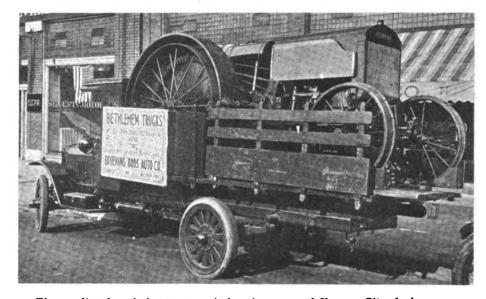
rights to manufacture the Doble in this country, and eventually the Doble-Detroit Steam Motors Co. will be merged with it. For the time being, this concern will be maintained intact to deal in Doble patents and foreign manufacturing rights. The manufacture of Doble cars at Chicago will be under way in a few months. No additional stock will be issued. Abner Doble, who is employed by the Doble-Detroit company, is at present in France, supervising the manufacture of Doble cars in that country. It is stated that a company is being organized in Great Britain to start manufacture there.

WANT RURAL TRUCK LINES IN NEW YORK

NEW YORK, July 31-The operation of rural motor truck express systems throughout the state, preferably by cooperative associations, was recommended to Governor Smith in the recent report of the committee on food production and distribution of the State Reconstruction Commission. The recommendation was made that a temporary, non-salaried transport committee be appointed to promote and direct this movement. The commission would include the commissioner of highways, a representative of the State College of Agriculture or the county farm bureau organization, a representative of the State Department of Farms and Markets and two others.

The report estimates that such trucking would result in diminishing transportation costs to three-fifths of rail costs, on an average.

Tractor Delivered by Truck Nine Hours After Order



The predicted rush for tractors is keeping up, and Kansas City dealers are hustling. The farmers want the tractors delivered on their farms the day after the order is given. Bruening Bros. got an order for a Plowman tractor from a farmer in Central Missouri the other day, shipped it immediately by train, and it reached its destination after eight days. Came pretty near having to take it back. So the next order from that locality, Sedalia, 104 miles away, was put on a Bethlehem 2\(\frac{1}{2}\)-ton truck—and reached the farmer nine hours from the receipt of the order. It took an hour to make bolts for fastening the tractor to the frame of the truck, to guarantee safety over rough roads. If it could have been shipped without such trouble, it could have got away in five minutes

The RETAIL NEWS

NORTHWEST

W. Turner, Springfield, S. D., has bought the Springfield garage. The new firm will be Turner & Sons.

The Sioux Fails Paint and Glass Co., Sioux Fails, S. D., has been made distributer in the State for Firestone tires.

The Farmers' Oil Co., Lowry, S. D., has been incorporated at \$5,000 by Harold Kozitzky, C. Lawton and Simon Huber to wholesale and retail oils and by-products.

The Robertson Storage Battery Co., Cedar Rapids, Ia., is building a new service station.

The Campbell Motor Car Co., Cedar Rapids, Ia., agent for the Studebaker, has closed its salesroom and moved to Waterloo, Ia.

J. M. McKibben, Cedar Rapids, Ia., has obtained the Dodge agency there and is temporarily located at the Corn Belt Garage.

Fred Hazen, Cedar Rapids, Ia., has opened a garage and service station at 1214 Fourth Avenue.

The Rapids Auto Parts Co., Cedar Rapids, Ia., has been opened by J. A. Franklin at 200 North First Street.

Packard Tire Stores, Cedar Rapids, Ia., has been opened at 626 Second Avenue under the management of S. W. MacKenzie.

The Cedar Rapids Exide Battery Station, Cedar Rapids, Ia., has moved to its new location at 604 Second Avenue.

The Kouba Haynes Co., Cedar Rapids, Ia., has succeeded to the business of the Proctor Perley Co., and will distribute Haynes cars.

Fred Shreeve, Cedar Rapids, Ia., and his son have opened a garage at Second Avenue and Fifth Street.

The Cedar Valley Nash Co., Cedar Rapids, Ia., has moved into new quarters at 521 Second Avenue.

The G. Z. Shugart Agency, Cedar Rapids, Ia., has succeeded the D. & S. Motor Co., in the sale of the Kissell and Oakland.

Fort Pierre Aero Co., Fort Pierre, S. D., has been incorporated with capital of \$5,000. The incorporators are Lieut. A. W. Stevenson, Lieut. H. H. Rowe and C. E. Coyne.

The American Motor Sales Co., Sioux Falls, S. D., has moved to Eleventh Street and Main Avenue and become Chevrolet agent. H. G. Bennett is president and general manager, Harry Blewett is vice-president, L. L. Trotter is secretary and E. J. Wintersten treasurer.

The United Motor Sales Co., Sioux Falls, S. D., a branch of the same company at Sioux City, Ia., opened at North Main Avenue to sell the Cleveland tractor and the Jordan car. R. E. Melrose is manager.

Lotta Miles Tire Co., 243 N. Philips Avenue, Sioux Falls, S. D., has been named sales agent in the vicinity for Kelly-Springfield tires and tubes.

Peter Dahl and Oscar Aasboe, Hanks, N. D., have bought the Hanks garage and will add a repair shop.

Frederick Carity, Redwood Falls, Minn., has bought the Ford garage from A. J. White and Fred Person and is now operating it.

Laurence Kelley, Lynd, Minn., has bought the R. A. Nicholson garage. Nicholson moved to Brewster, Minn., where he and M. L. B. Nicholson have bought a garage. Hartley Gray, Sturgeon Lake, Minn., has bought the interest in the garage from Forest Skelton.

J. B. Chapel, Marietta, Minn., has bought the garage outfit of M. L. Seim and will continue the husiness

Harry Brown, Chaffeld, Minn., battery repair expert, has bought a half interest in the J. J. Dalez vulcanizing and tire business.

The Stevenson Motor Sales Co., 414 East Superior Street, Duluth, Minn., has moved to the Auditorium Building, Third Avenue E and Fifth Street, leaving the repair business at the former number. The offices and display rooms will be in the Auditorium. The line is the Stearns, Westcott, Napoleon and Moore.

The Auto Electric Service, Sioux Falls, S. D., has been incorporated at \$25,000 by R. G. Arthur of Sioux City, Ia., and Charles Hathaway and J. M. Pryde of Sioux Falls.

Martin Larson, Sioux Falls. S. D., has bought property at Seventh Street and Main Avenue. He will build a large garage.

The Minnesota Motor & Warehouse Co., St. Cloud, Minn., has filed articles of incorporation with authorized capital of \$250.000.

The Hubbard-Williams Auto Co., Sheldon, Ia., has purchased the Sheldon Auto Co. In addition to the Dodge line this gives the Hubbard-Williams Co. the Cadillac and Buick, the Hart-Parr tractor and the Traffic truck.

The Macy Motor Co., West Union, Ia., has sold its Ford garage to the D. and C. Motor Co., Knoxville, Ia.

Chas. W. Bryan, Seymour, Ia., has bought the interest of H. F. McDonald in the Seymour garage.

The West Side Garage, Osceola, Ia., has been purchased by R. A. and M. F. Wornstoff

Henry Carstens & Son, Manson, Ia., have bought the garage at Third and Main streets from Will Carstens.

B. F. Thomas, Marengo, Ia., have bought the garage there from Walter Meyers. Mr. Meyers retains the Dodge and Columbia agencies.

The Storm Mfg. Co. of Thompson, Iowa, maker of repair equipment, has moved its main office to the Minneapolis branch at Sixth Avenue S and Fourth Street. The factory will follow.

The Mason City Buick Co., Mason City, ia., has filed articles of incorporation with a capital stock of \$30.000.

Bert Williams, Oakville, Ia., has bought the garage at Wapello, Ia., from J. M. Guthrie.

H. H. Payne, Centerville, Ia., has bought the interest of his partner, J. F. Stringer, in the Universal Car Co.

The Des Moines Motor Sales Co., Des Moines, Ia., is the new name of the Luril Motor Sales Co., Peerless dealers at 415 Fourth Street. A. S. Luril remains in charge.

The Hawkeye Auto Supply Co., Des Moines, Ia., has been opened at Locust and Tenth streets under the management of Charles Herrington, formerly of Kansas City.

The Gelling Motor Co., Sioux City, Ia., is erecting a new service and sales station and will handle the Holmes.

The Great Western Tire Co., Sioux City, Ia., has been opened at 516 Fifth Avenue, with Robert T. Miller as manager.

The lowa Cylinder & Piston Co., Cedar Rapids, la., has taken the Chalmers agency.

The Wright-Chapman Co., Cedar Rapids, Ia., has been formed to sell the Maxwell, by D. R. Chapman and Marvin Wright, formerly of Des Moines. They have taken over the Russell Motor Co.

The White-Lewis Motor Co., Iowa City, Ia., has taken the Studebaker agency, being located at 301 South Clinton Street.

Charles Secrist, Iowa City, Ia., has purchased the Buick agency formerly held by the late E. H. Sidwell.

J. A. O'Leary, Iowa City, Ia., Velie agent, is enlarging his quarters.

The Atlantic Auto Co., Council Bluffs, Ia., has been purchased by Ray Langeway. L. A. Wilson, former owner, will leave here for the West.

The Miller Motor Car Co., Waterloo, Ia., have taken the agency for the Grart, opening a garage and salesroom at 626 Commercial Street.

The Crisman Auto & Storage Co., Waterloo, Ia., will sell the Scripps-Booth at its new salesroom and garage at 612-616 Jefferson Street.

Priebe Bros., Waterloo, Ia., have a new garage at 1615 East Fourth Street.

MIDDLE WEST

A. J. Dohle and A. H. Pennawaitt, Springfield, Ill., have organized the Springfield Auto Sales Co. and will have headquarters at 416 South Sixth Street. The new concern will distribute the Buick in Sangamon County. Dohle comes from the Chicago agency of the Buick. His partner has been handling motor vehicles at Easton, Ill., for a number of years.

Larry J. Malone, Peoria, Ill., has opened a sales agency at 322 Hamilton Street and will be associated with his two brothers as distributer of the Chevrolet car in the county of Peoria. For two years the former has conducted the L. J. Malone Motor Car Co., Bloomington, Ill., but recently disposed of the business to E. D. Sill of Normal, Ill.

Charles E. and Benjamin E. Noeske, Freeport, Ill., have purchased the Palace garage from Jacob Zimmerman.

The Pattee Sales Co., Monmouth, Ill., has been organized and will operate a garage and sales agency at 617 South D Street. Capital stock has been fixed at \$25,000. Incorporators are Fred B. Pattee, Isaac S. Wolf and Joseph P. Moore.

F. A. Seller, Decatur, Ill., has added a 35-foot extension to his garage at 252 East Wood Street.

The Offer Auto Co., Springfield, Ill., has opened a new garage and sales agency at 609-611 East Jefferson Street, the old quarters on North Second Street being outgrown. The concern has taken the agency of the International truck and Auburn passenger car.

W. M. Stowell, Springfield. Ill., has purchased the Hein Tire and Rubber Co., Fourth and Jackson streets. He was formerly in the same business at Virden, Ill. He will specialize in tires, but will also handle other accessories.

Elbert S. Hatcher, Springfield, Ill., has taken the agency for the Commerce truck in the Sangamon county territory.

Kenney & Donielson, Loda, Ill., C. W. Shoot, Charleston, Ill., and F. H. White, Longview, Ill., have taken the agency for the Bates Steel Mule tractor in their respective terri-



The Reardon Automobile Co., Peoria, Ill., has been incorporated with a capital stock of \$25,000. It is proposed to do a general repair and storage business and also operate a sales agency for motor vehicles of all kinds.

The T. J. Kelly Automobile Co., Peoria, Ill., has been incorporated with capital stock of \$25,000.

SOUTHWEST

- Ed. C. Smith & Bros., Dallas, Tex., are erecting a \$10,000 garage, which will be equipped with all automobile accessories. It will be 50 x 100 ft.
- C. C. Hanch, Fort Worth, Tex., has been appointed manager of the Maxwell Motor Co. The company also handles Chalmers cars.

The Lester Auto Co., Orange, Tex., will open salesrooms soon in the new Dutcher Building.

Kearby Barnes, Dublin, Tex., has purchased the interest of Bert Drake in the Fisher-Drake Sales and Service Station. An addition is to be built.

- R. B. Davis and O. B. Anderson, Olathe, Kan., have opened an Overland agency.
- F. A. Flanagan, Buffalo, Mo., has opened a vulcanizing shop in the Davis Marsh Garage.

The B. & W. Tire Co., Atchison, Kan., has been chartered with \$100,000 capital stock. The factory will buy machinery for the manufacture of a tire invented by Fred Bailey of Wichita, Kan., and will be ready for opening about the first of September.

C. J. Williams, Eldorado, Kan., recently returned from service overseas, has reopened the Paige Motor Car Co. in the Paige Building.

The Jules E. Schneider Investment Co., Dallas, Tex., has obtained a permit to erect a modern garage building at a cost of \$10,000.

The Watson Motor Co., Wichita, Kan., has let the contract for a new five-story warehouse, which will be used mostly for the storage of Overlands, for which the company is agent.

W. D. Boyd and W. D. Lonergan, Caruthersville, Mo., will soon open an establishment for half-soling automobile tires.

The Neal Motor Co., Topeka, Kan., local distributer for Nash cars and trucks, has moved into its new \$14,000 home at 1026 Kansas Avenue. H. H. Mack is the local manager.

The Deignan Motor Co., Oklahoma City, Okla., has been chartered with \$100,000 capital stock by John A. Deignan, W. R. McCluskey. Oklahoma City, and Edwin W. Watts, Muskogee.

James G. Johnson, Platt City, Mo., has purchased the building adjoining his garage and will remodel it as an addition.

J. D. Frear, Centerville, Kan., has opened a garage and is handling Ford parts and other supplies.

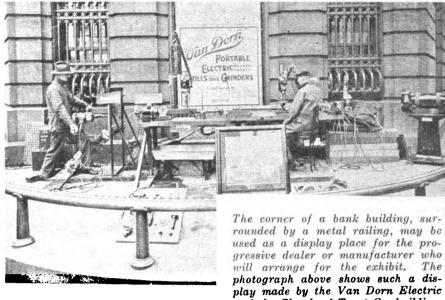
W. A. and J. M. Parker, Fairfield, Tex., have let a contract for a concrete and tile garage.

Jack Mays, Del Rio, Tex., has leased the old Ford Garage building, where he will store and sell Oldsmobiles, Hupmobiles and Dort cars.

The Golden Rule Oil Co., Pratt, Kan., of which H. S. Gregory is manager, has opened for business.

The Aiva Reo Motor Co., Aiva, Okla., has opened a new salesroom and office in the Snyder Building.

R. E. Jones, Corsicana, Tex., has bought the City Garage building and will erect a modern two-story brick building on the site.



Tool Co. of Cleveland around a corner of the Cleveland Trust Co. building, at the junction of two of the main thoroughfares of that city. The workmen operated the tools throughout the day and caused much interest.

Valuable advertising was the result for the company

Kenneth Kells, Fort Scott, Kan., has bought a half interest in the Fort Scott Tire & Rubber Co.

The Chevrolet Motor Co., Fort Worth, Tex., will add another story to its plant at Arlington Heights Boulevard at a cost of \$150.000.

The Porter Tire Co., Springfield, Mo., has opened a new place of business at 321 Mc-Daniel Avenue.

Robert T. Russ, Waco, Tex., has opened a first-class repair shop, with vulcanizing a specialty.

G. W. Spencer, Salina, Kan., is constructing a garage costing \$50,000.

Charles Tucker, Lyons, Kan., has taken the agency for Overland cars and Republic trucks.

Petro & Kinley, Henrietta, Tex., have formed a partnership to handle Oldsmobile cars, trucks and parts.

PACIFIC COAST

Didler & Hillebrand, San Francisco, have opened the Master Truck Repair Shop at 130 Eleventh Street.

The Associated Auto Supply and Repair Co., San Francisco, has been opened by I. Hester and William Cohen at 10 Mission Street.

The Richmond Auto Repair and Tow Service, San Francisco, has been established by Gay Gianetti at 4446 Geary Street, in the quarters formerly occupied by William Larssen.

The California Auto Supply Co., Oakland, Cal., has a new supply store at 1748 Broadway under the management of Maurice Copeland.

W. T. Rancel, Oakland, Cal., has doubled the size of his tire shop at 401 Webster Street.

Robert Dorward, Alameda, Cal., has sold his interest in the garage there.

H. R. Ahrens, San Francisco, has resumed management of the H. R. Ahrens Rubber Co., 224 Van Ness Avenue, after returning from service overseas.

The Kap Manufacturing Co., San Francisco, has opened a new plant at 156 Second Street.

C. E. Everson, San Francisco, has purchased an interest in the Bee Garage, 512 First Avenue.

The George Campe Co., San Francisco, has opened branch salesrooms for the sale of the Chevrolet, at 1009 Valencia Street, with J. Hayes in charge.

The North End Rubber Works, Gilroy, Cal., has been established by E. D. Soward and V. M. Soward as a vulcanizing and retreading shop.

Willard Storage Battery Co., Portland, has moved to new quarters at Ninth and Everett streets.

Paige-Spokane Motors, Inc., Spokane, has been incorporated for \$25,000 by M. D. Hawkins, E. H. Jamieson.

Ben Ruben and M. Reingold, Portland, Ore., have obtained the agency for the King Eight in Oregon and southwestern Washing ton. They have let a contract for erection of a 2-story brick building, 95 x 100, to be completed within 60 days at Broadway and Hoyt Street as salesroom and service station.

Sunset Electric Co., Seattle, has taken the agency for the Sparks-Withington line of motor horns, vacuum systems, radiator and radiator fans,

Vancouver Motors. Ltd., Vancouver, B. C., will erect a one-story and basement hollow tile and reinforced concrete garage building to contain show room and space for storage and repair departments.

The Farley Auto Sales Co., Oregon City, Ore., has opened its new quarters at Eleventh and Main streets with agency for the Chalmers and Maxwell cars and Lee tires.

John Coffman and Clarence Boone, Chehalis, Wash., will occupy a new brick building as salesroom for automobile accessories and supplies.

The Southwest Washington Auto Co., Chehalis, Wash., is building a brick garage building.

irvine Bros., Portland, Ore., are building a one-story brick garage building costing \$20,000.

The Dominion Automobile Tire Shop, Vancouver, B. C., will build a service station and garage building at Seymour and Smythe streets.



Floyd Holladay, 424 Belmont Street, Portland, Ore., will erect a one-story garage.

E. F. Borton, 1142 Division Street, Portland, Ore., will erect a one-story concrete and tile garage.

Keiso Garage, Kelso, Wash., will build a fireproof garage.

Ray Hatch, Chehalis, Wash., will erect a brick service station to house his Willard battery business.

John G. Reeves, 7415 Woodland Park Avenue, Seattle, will construct a one-story concrete and brick garage to cost \$10,000.

Seth Ekstrom, Seattle, will construct a two-story garage building on Ferry Avenue and Olive Street.

The Howe Bros.' Garage, Albany, Ore., was destroyed in a recent fire which swept the city and caused loss of \$100,000. The garage will be rebuilt.

The Eveready Electrical Service Co., Seattle, has opened offices and salesrooms at 1205 Pine Street with a supply of Eveready storage batteries.

The Fowler Garage & Machine Works, Seattle, has taken the agency for the Ultra-4-Forty car in the Northwest.

The Deschutes Garage Co., Bend, Ore., will locate in a new garage building costing \$16.000.

Washington Mutual Investment Co., Seattle, will construct a one-story garage costing \$10,000.

E. L. Ellarson, Spokane, will establish the Empire Electric Service in a new \$25,000 brick and concrete garage.

Weed & Johnson, 5000 Rainier Avenue, Seattle, will erect a new one-story and basement concrete garage to cost \$20,000.

The G. H. Wilde Co., Portland, Ore., agents for the Case and Denby truck, will erect a new building costing \$10,000.

The Sparks Supply Co., Portland, Ore., will erect a new one-story brick building.

Rowe Garage, Aberdeen, Wash., will construct a new brick building.

George E. Large, Seattle, will erect a new garage and battery store building at 419 East Pike Street.

Vick Bros., Salem, Wash., have purchased a site at Portland, Ore., where a structure costing \$40,000 will be erected.

The Mack Buick Co., Everett, Wash., will construct a new brick garage at Wall and Rucker avenues.

McKaie Tire Co., Seattle, has opened new salesrooms at 1201 Pine Street.

The United Motors Service, Inc., has opened a branch in Seattle at 1708 Broadway, in charge of H. C. McLeod.

The Eldridge Bulck Co., Seattle, King County distributers for De Luxe and Goodrich solid tires, has opened a solid tire school at the new service station at 802 East Pike Street, with meetings once a week.

Beckett Brothers, Seattle, have opened a new garage, machine shop and service station in the University district.

John Kamb, Mount Vernon, Wash., plans the erection of a new \$25,000 garage to be occupied by the Mack-Buick Automobile Co.

SOUTH

Black & Maffet, Atlanta, Ga., have taken over the Dodge agency. They formerly were associated with J. W. Goldsmith, Jr., who formerly handled the Dodge line.

Lanford-Parr & Co., Atlanta, Ga., will open salesrooms at 239 Peachtree Street as Georgia distributers for the Kissell. The two owners were formerly with Haynes Atlanta distributer.

United Auto Company, Atlanta, Ga., will handle the Moon in Southern Alabama. W.



An attractive exhibit in the accessory tent at the recent National Tractor Demonstration at Wichita, Kan., was that of the U.S. Ball Bearing Manufacturing Co., Chicago, manufacturer of Strom Ball Bearings. Its booth contained three pyramids of glass-covered mahogany cases in which were displayed various sizes of radial and thrust bearings, also Strom steel balls, mounted on purple velvet. The center pyramid supported a large revolving globe, encircled by meridians of ball bearings, emphasizing the fact that Strom bearings are to be found in use in all parts of the world. The booth was in charge of H.N. Parsons and H.E. Johnson, sales engineers, both of Chicago.

E. Hensley is general manager of the com-

The Latta Auto Co., Latta, S. C., will handle the Moon. The manager is D. B. Shine.

Broadway Motors Co., Nashville, Tenn., have contracted to sell the Moon in that territory.

The Tache Motor Co., Jeanerette, La., has contracted for extensive additions to its quarters. A new building for the branch at Lafayette, La., will be occupied in September, while another branch at New Iberia. La., also is being enlarged.

Woodruff Machinery Mfg. Co., Atlanta, Ga., has been appointed to distribute Armleder motor trucks in Atlanta and vicinity.

The Gardner Automotive Co., Birmingham, Ala., has been organized to handle the Moon.

NEW ENGLAND

The Reid Motor Co., 278 Main Street, Hartford, Conn., has added the Auburn to its line.

The Puritan Motor Sales Co., 190 Pearl Street, Hartford, Conn., has leased the property at the corner of Pearl and Ford streets, Hartford.

George D. Knox, Hartford, Conn., Roamer distributer, has removed to 91 Ann Street. A new brick sales and service building will be erected shortly in front of the temporary quarters on Ann street.

Dell's Garage, 266 Wethersfield Avenue, Hartford, Conn., has been appointed Split, dorf sales and service agent for this vicinity.

The Hartford Storage Battery Co., 120 Allyn Street, Hartford, Conn., has taken on the Auto-Lite agency for this section.

The Electric Parts & Service Co., Hartford, Conn., has opened a service station at 1271 Main Street, featuring repairs and service for ignition and lighting devices. C. H. Schrag, formerly electrical service manager for the Universal Auto Co., is service manager of this new concern.

NEW GARAGES

Motor Service (\$25,000).....Hankinson, N. D. Dixon Motor Co (sales).......Fargo, N. D. Oscar & Irvin McCormack....Aurelia, N. D. Moore Auto Co. (Reo service and sales),

Flandreau, S. D.

Robert O'Reiley.......Mura, S. D.
Willesey & Howard.....Lake City, S. D.
Walkins & Leavitt.....Sioux Falls, S. D.
Ernest Hosch......Crandon, S. D.
John Westberg.....Northville, N. D.
Burt Johnson (repair shop)..Madison, S. D.
Auto Tire & Retreading Co. (branch),

M. L. Lyman.......Tabor, Iowa
R. H. DeVault......Bloomfield, Iowa
Co-Operative Delivery Co....Atlantic, Iowa
Nels P. Brown......Atlantic, Iowa
Lee County Electric and Battery Co.

·

Getting "The Dope" on Your Prospect

If He Has Kinks — Jot 'Em Down

By K. H. LANSING

Form 37								
	Dat	e						
Name								
Address								
Town		State						
Interested in the following model:								
Model E E Tour	口	Model EE Foursome	Д					
Model EE Sedan	口	Model E E Chassis	口					
Model EE Roadster	口	Special Body	口					
		Special Body	_					
Own at the presen	nt time	•						
Own at the presen	nt time							
Own at the presen Will want new car Next appointment	about	 h						
Own at the present Will want new car Next appointment Remarks	about							
Own at the present Will want new car Next appointment Remarks	at time	i						

This is like a ballot sheet and the salesman ticks the model the prospect is interested in

W HAT sort of person is your prospect?

Is he a bit nervous, easily irritated, speed crazy, or finicky?

Is he angered by argument, open to reason, easily convinced, or quite the opposite?

Does he know little or much about a car—especially about the car you are selling?

In the delicate business of swinging a deal, it is often well to know a great deal about your customer. It may mean the difference between "No Sale" on the cash register and a broad grin on the face of the big boss.

Anyhow, the Parker Motor Sales Co., 518 North Broad Street, Philadelphia, King dealer, is proceeding on that plan. The Parker salesmen keep "kink sheets." All a prospect's, or customer's, personal peculiarities are jotted down thereon and then transferred to standardized form cards and filed in a tickler. The office may speak of this as "information regarding prospects and customers," but when a salesman speaks of his "kink sheet," the others know what he means.

Just as the Paris Prefecture of Police is said to keep tabs on every one about whom it wants to know, so the possessor of a "kink sheet" may keep all sorts of valuable information helpful in handling his prospect.

The Parker salesmen, in using the system, record about as follows: Name and address of prospect, his or her characteristics insofar as they may affect a sale; whether city, suburban, or rural dweller; preferences, if any; temperament; whether it will be necessary to instruct in driving from the very beginning, and

the like. Some, too, want only "looks" in a car; others want mainly speed and still others improved mechanism.

This is organization. If a salesman having this knowledge should fall dead, or leave the firm, or be absent when a prospect or customer calls, the office has this information and will know by a glance at the tickler just how to handle him, according to E. W. MacQuivey, sales manager. A point is made of reviewing this ticket each morning, so that no one will be caught unprepared.

The "kink sheet" and tickler are used, of course, in conjunction with the rest of the office system, the two dovetailing well with it.

Every salesman, for instance, is provided with a Prospect Information Blank pad. On these slips are recorded name and address of prospect; what model he

(Continued on page 35)

		Date12/39/1	
Name of Prospect	Richardson, C. B.,	Whom to See	
Tel No.	Address Broadway	A Vanho St., Cambon, N. J.	
Salasman	Sec	urce Not. Magazinb. Rating	•
testerested in			
Researce			
Dete			tollow u
1/2/15 W. L. #	2 and 8 circular		
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Above is one of the index cards, 5 x 8, from the followup system of the Parker Motor Sales Co. At the right is the daily report that the salesman hands the sales manager

	DAILY REPORT
BALESMAN	DATE 191
MAME.	ADDERSE
ZAMB	ADDRESS6
MAMB	ADDages
	SPECIAL INFORMATION
	Digitized by GOOG C

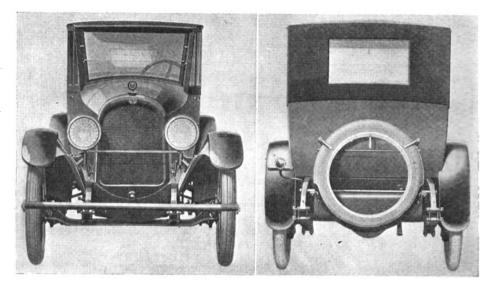
WESTCOTT

Brings Out a "Lighter Six" for 1919-1920 Season

WESTCOTT LIGHTER SIX

Engine New Continental 7-R
No. of cylinders6
Bore and stroke $3\frac{1}{4} \times 4\frac{1}{2}$ in.
Cylinder shapeL
Body types5
Wheelbase118 in.
Water circulationPump
LubricationPressure
Carbureter
Fuel feedStewart vacuum
IgnitionDelco
Starter Delco
LightingDelco
ClutchBorg & Beck
GearsetBrown-Lipe
Steering gear
SpringsSemi-elliptic
AxlesTimken
PricesNot announced

Early in the Back-to-Business parade of the industry with a new model for the trade is the Wescott Motor Car Co., which is out with a new Lighter Six, as it is styled. The car is fitted with an attractive line of bodies, thereby giving



The front and rear views of the Westcott are particularly attractive, the rear having the modern square-line effect that is so much in voque

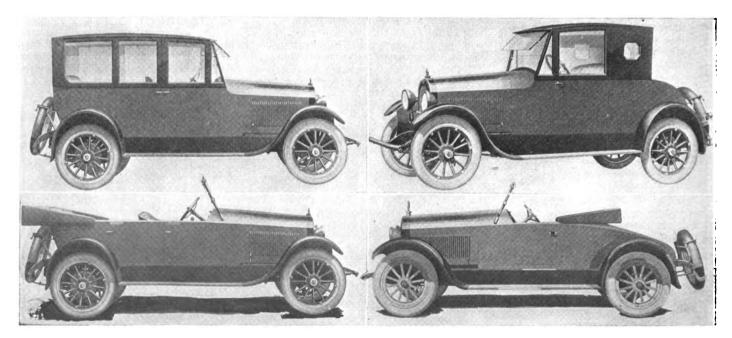
the dealers something "new" with which to meet the public expectation of radical changes this year. These bodies are of four styles.

This car is fitted, as a radical departure from the old model, with the new Continental 7-R engine, being one of the first cars on the market with this power. plant. It is a six-cylinder unit, 31/4 x 41/2 in. type with three point suspension. The cylinder head is removable and the crankcase of aluminum. It is of Lhead construction, the valves being on the right and having clear diameters of 1% in. This, combined with a 5/16 in. lift, gives exceptional valve capacity in tne new engine. The crankshaft has four bearings, 21/4 in. in diameter, oiled by a gear type oil pump producing a pressure feed of 35 lb. through the drilled shaft to the main bearings, lower connecting rod bearings and gear case, the remaining parts being oiled by vapor.

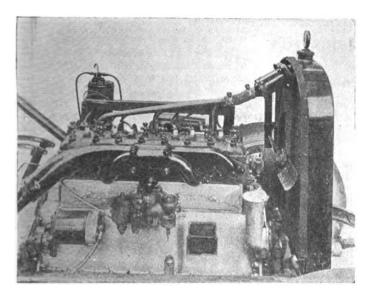
Other units in the car, an assembled type, are Timken axles, front and rear, Brown-Lipe gearset, Spicer joints and tubular driveshaft. This clutch is Borg & Beck and the steering Gemer.

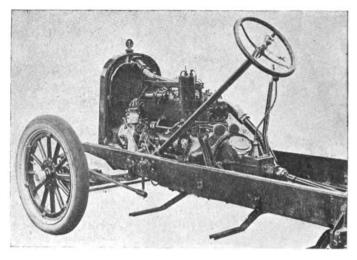
Automatic thermostat regulation is employed for cooling control, an unusual feature in the cooling system being the employment of a three-way outlet pipe to the radiator instead of the usual single line. A gasoline system includes a Rayfield carbureter with Stewart vacuum feed. Delco starting and lighting is employed with Bendix drive, the starting motor being on the right and the generator, which is driven off the water pump shaft, is on the left. The Delco distributor is also on the left side of the crankcase at the front end and is operated by a vertical shaft through a spiral gear drive.

The chassis frame has been redesigned and now has a 7 in. side rail, the front



FOUR OF THE BODIES IN THE NEW WESTCOTT LIGHTER SIX FAMILY—Upper left, sedan. Upper right, coupe. Lower left, touring. Lower right, roadster. Prices will be announced later





The Westcott has the new Continental 7-R engine

springs being semi-elliptic, 36 by 2 in., with six leaves. The rear springs are semi-elliptic, 56 by 2 in., with eight leaves

Complete fittings are provided throughout, the instrument board being of solid walnut. The price will be announced later.

The wheelbase remains at 118 in. The bodies are five-passenger touring, two-passenger roadster, three-passenger cabriolet coupe and five-passenger couple.

GETTING "THE DOPE" ON YOUR PROSPECT

(Continued from page 33)

may be interested in; what car, if any, he owns at present; when he may want his new car; date of next appointment and any remarks that may prove helpful. At the bottom of the slip, before submitting it to the office, the salesman signs his name.

To make it as easy as possible, the models in which the prospect may be interested are named on the slip, with a small square opposite each for the insertion of a check mark, after the manner of a ballot.

From these slips is transcribed such usual information for the regular card index system as: Date, name, address and telephone number of prospect, whom to see, name of salesman, source of information which led to prospect's considering car, prospect's rating, in what he is interested, remarks, date of considering him as prospect and when to follow up.

On the reverse side of the form the salesman writes all the other information about the prospect, as such, which he is able to compile. If a salesman who has all this information in his head happens to be out when a prospect thus "bertilloned" calls, a salesman informs the manager, who immediately looks up the card and then is ready to talk from the prospect's viewpoint, or deal with him more intelligently than if he had no information about him.

In addition to these system forms, each salesman has a Daily Report Blank, having spaces for the names and addresses of five prospects and a space as well for special information.

On the daily report sheet, handed every night to the salesmanager, the salesman writes a description of the

demonstration given, if he has been able to make one.

Information as a "leader" to closing a deal, it will be seen, is a strong point with the Parker Motor Sales Co.

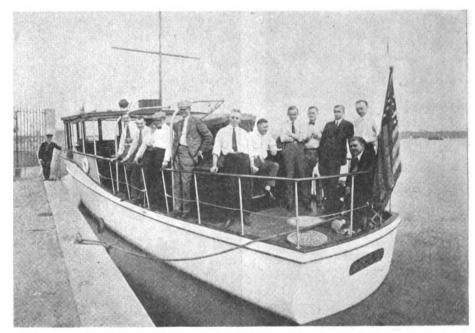
Fisk Workers Own the Branches Now

ST. LOUIS, Aug. 1—The Fisk Rubber Co. is pursuing a new policy in St. Louis, having disposed of all of its retail and service branch tire houses to employees, most of whom have been in charge of the branches they now own.

The South Side branch, Grand Avenue and Humphrey Street, has been acquired by the Beverly Rubber Co., of which A. P. Woehrle, branch manager there for three years, is president.

The Northside branch, 2824 North Grand Avenue, is now owned by J. O. Glasser, Gus von Cloedt and Harry W. Sanders, who will operate the business as the University Tire & Rubber Co.

The West End branch, 5711 Delmar Boulevard, has been sold to the Roger Putnam Tire Co.



Members of the truck division of the Detroit Automobile Dealers' Association held a unique meeting last week on board the yacht of Guy O. Simons, secretary of the association. They boarded the boat at 4 o'clock and the meeting was held while the captain piloted the vessel across Lake St. Clair to the New Club, where dinner was screed. This is the first time that a meeting has been held in this manner, but it proved a remarkable success and it is probable that Commodore Simons will have his craft commandeered for more sessions of this nature during the hot weather. The truck men, from left to right, are: H. G. Brown, Acason: E. S. Thompson, Federal; J. C. Ayers, Denby; C. C. Spenser, Packard; C. A. Abbott, Nash; H. R. Graham, G. M. C.; G. O. Simons, White; A. L. McCormick, Paige; A. J. Tivy, Signal; Fred E. Fox, Fulton; H. H. Shuart, manager of D. A. D. A.

NEW RULING BRINGS LOWER CHASSIS TAX

Washington Decreases Impost From Five Per Cent—N. A. D. A. Succeeds In Protest

ST. LOUIS, MO., Aug. 2-Efforts which the National Automobile Dealers' Association have made to have a truck chassis carry a three per cent tax, instead of five per cent, have been success-

The Treasury Department, in a ruling revising previous findings, has, in effect, authorized the assessment of a three per cent tax on chassis and reversed the former ruling that a chassis is a part and as such taxable at five per cent.

The new ruling contained in Treasury Decision 2893 is a follows:

Decision 2893 is a follows:

"Definition of Chassis And Parts. The last two sentences of Article 15. Regulation 47, modified by T. D. No. 2852, are hereby further modified to read as follows:

"A chassis provided with a superstructure of such design that it is without substantial additions adaptable for hauling heavy loads is an 'automobile truck' or 'automobile wagon' and taxable at the rate of three percent when sold by the manufacturer thereof. A chassis not so equipped is an 'other automobile' or a 'part,' taxable at the rate of five per cent when sold by the manufacturer thereof, unless (1) the manufacturer has actual knowledge from the construction of the chassis which he sells that it is to be used as an automobile truck or automobile wagon, or has in his possession at the time the chassis is shipped or sold (whichever is prior) an order or contract of sale with a certificate of the purchaser in writing printed thereon or permanently attached thereto, showing that the chassis specified in the or-

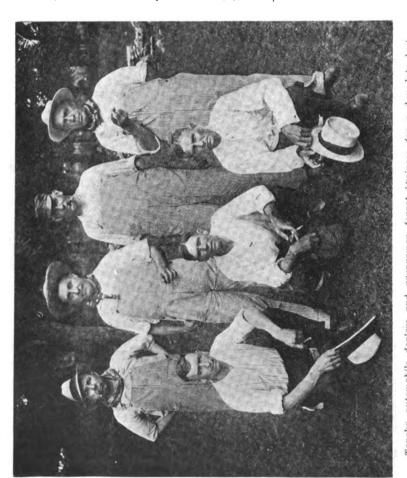
der is to be used, in which case the chassis will be taxable at the rate of three per cent when sold by the manufacturer thereof."

The present modification is interpreted to mean that if you can look at a truck chassis and tell that it is to be used as a truck for hauling property it bears a three per cent tax. This ruling virtually means that the only case where a five per cent tax applies to a truck chassis is where a bus body for hauling passengers is attached.

An amendment also is made in the new ruling which exempts from tax sale of articles to the United States for use in carrying on its governmental functions. Previously these sales have been taxed. Sales to a city, state or a political subdivision thereof are not taxable.

Lauson Has Foreign Sales

NEW HOLSTEIN, WIS., July 31-Arrangements by which the Lauson tractor, made here by the John Lauson Manufacturing Co., will be handled in foreign countries were announced to-day. The Northwest Trading Co. of Seattle will distribute the product in Australia, Japan, China, the Straits Settlements and Scotland. Theodore Butler, Ltd., London, has the English concession; Monteiro Gomes, Ltd., are the agents for Spain, Portugal and the Portuguese possessions; Kullberg & Co., of Norway, will distribute in that country, and the Liberty Steel Products Co. of New York will cover France, Belgium, Roumania and Italy. Casacarter, S. A., of Havana, Cuba, will be the agent in that country.





Why the Motor Dealer Should Sell Lighting— Why Some Have Quit

A Discussion of Two Phases of the Successful Merchandising of Farm Systems

—What the Manufacturer Looks For

HY is the automotive dealer the best man to handle farm lighting? Why have some automotive dealers failed in selling that commodity? The first question may be answered by—

The automobile dealer is schooled in the finished, clean-cut automotive method of conducting business, he appreciates the value of doing a cash business and he is used to giving service and keeping owners satisfied.

But—

Many dealers have used too little capital to swing the proposition; it was "too much trouble" to hunt up business and they were too doubtful about the plan's success to engage salesmen on it.

This article was written after talking with various automotive dealers and garagemen and farm lighting system promoters. Many dealers took up the line during the war when car sales were curtailed and many of them have dropped it since. Generally those who "did not make good" let go their contracts because of one or more of the following reasons:

Failed In Salesmanship

They failed to apply as individual and persistent salesmanship to pushing farm lighting as to pushing their previously established business. That is, they looked on the farm lighting system too much as a sideline, forgetting that PERSISTENT FIELD SALESMANSHIP ALWAYS MUST BE THE FORERUNNER OF ANY BIG BUSINESS IN ITS PIONEERING PHASE.

They would not make a sufficient appropriation for properly financing the farm lighting business and when factory suggestions were made to enlarge the stock with accessories and "leaders" to further trade development, they became suspicious that the factory was trying to "unload" its wares on them in a neverending sequence.

When peace came into sight, they

dropped the proposition because automobile sales were reasonably assured and they had intended to use the farm lighting plan merely to "bridge" the business hesitancy.

They tried to, or thought they could, make a regular farm lighting salesforce out of their regular salesforce in its spare moments.

The very reasons why these men fell short, of course, are the reasons for the "you-can-go-hang" attitude to-day of some farm lighting houses as regards automotive dealers and garagemen. Yet they need one another. Staying aloof and seeing valuable trade go by the board is as senseless as the viewpoint of the Southern darky who, when asked if he wished to make a quarter, replied, as he shuffled on, "Lawdy, no! I'se done got one."

Lighting Department Important

In 1918, one large light company made a drive on automobile dealers because the management believed that the automotive industry represents the one biggest class of merchants who could be made into successful farm lighting deal-That corporation now has on its list of dealers a large number of automobile men. For some of the reasons already mentioned it found certain of its dealers from these sources difficult to impress with the necessity of continuous field work, the tendency being to neglect the farm lighting preliminaries for the previously established and comfortably going automobile business.

While far from confining its dealers and distributers to automobile men, the corporation deems that they make good farm lighting merchants. But this company is playing no favorites in the race for business and the way also is open to merchants in other lines.

The big point to keep in mind is that farm lighting concerns maintain that, to make a success of selling their products, the automobile dealer must consider that department as important as any other—in fact, the more staple his other business and the more his type of car is dominating the market, the greater

the necessity for maintaining a separate sales group for farm lighting.

It is this company's plan to have every territory developed intensively. Farm lighting prospects are so numerous —they should be a considerable proportion of nearly 7,000,000 American farmers-that there should be little difficulty in each agency finding all the business it can attend to. Experts who have analyzed the rapidly increasing demand, estimate that within the next five years more than sixty per cent of the farm homes will be equipped with electricity. This means that in every county seat and rural trading center there is to-day an opening for a new merchant engaged in selling farm lighting and electrical accessories.

With the purpose of obtaining its share of this business, the company is building dealer representation in the principal trading centers of each county. If the concern can get the right type of dealer, it will give him its sales and advertising helps, sales experience, advice and suggestions.

na suggestions.

Want Dealer of Standing

But it requires that-

The dealer be a man of integrity, high standing in the community and in full health and energy.

He must have some capital, or financial backing, to operate and develop the merchandising of lighting plants and electrical labor-saving devices. He must be able to carry a stock of plants at all times, from which immediate delivery can be made to a purchaser. The company will not accept knowingly a dealer who is trying to operate on a "shoestring."

He must have the vision to see his own farm field and so equip his business that he can cultivate the farmers who trade in his city, if he does not already know them. He must be capable of going to them at their homes—and this is where the automobile dealer ought to shine—and of demonstrating to them there.

Motor Parade at Fair

TOLEDO, OHIO, Aug. 2—An automobile parade, each car driven by a woman, will be the motor feature of the Lucas County Fair to be held here. A contest also will be featured in which the women will drive. The cars will be driven before the grandstand, the contest being decided by the general appearance of the vehicle, the manipulation by the driver the cars being classified into various divisions. The showing will be under the direction of the Toledo Automobile Club and is being arranged by H. B. Marks, director of exhibits of the fair.

Huge Expansion For Dodge?

DETROIT, Aug. 2—Dodge Bros. are reported to have purchased a tract of 278 acres on the West river front on which large blast furnaces and steel rolling mills are to be erected. The price for the tract was given out as \$2,085,000.

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News Letters From Trade Centers

NEW ORLEANS

Dealers Back Roads

NEW ORLEANS, LA, Aug. 1—Delegates from each of the 63 parishes of Louisiana were called together in the New Orleans Association of Commerce, July 31, to organize the Louisiana State Council of the Federal Highway Council. The purpose is to develop a broad, intelligent and definite highway policy for this state, and the federal council, through the state organization, will coordinate the work.

It is hoped that this will bring about a co-operative direction of the campaign for national highway legislation. The expenditure of the \$10,000,000 which Louisiana is putting into good roads this year also will be aided by the federal council's advice and assistance.

The Louisiana-Mississippi Automotive Trades Association, which was organized here by some 300 auto dealers of the two states, July 10 and 11, and has since gained nearly 200 more members, has opened headquarters at 712 Peydras Street, with C. U. McDowell as secretary-manager. He reports that parish branches in Louisiana and county associations in Mississippi are being organized rapidly.

The second convention of the Louisiana-Mississippi Association will be held in Jackson, Miss., Oct. 9 and 10. Approximately 600 dealers from the two states have signified their intention of attending this meeting. In Louisiana, the association will devote special attention to the betterment of roads, and in Mississippi the introduction of tractor demonstrations will be one of the main objectives.

The Motor League of Louisiana, of which P. M. Milner is president, is laying plans for a campaign to raise and expend \$20,000 for good roads publicity and development during the next twelve months. Twenty-seven parishes are now engaged in improving present roads or building new ones.

The Automobile Tire Co., Inc., which has a branch at 600 Baronne Street, New Orleans, is largely increasing its space.

The new Kline car is now being gold here by Duggan, Inc., with Thomas J. Duggan as president; Peter Hamilton, vice-president and manager of the auto department; Raymond Sherrard, vice-president and superintendent of the repair and service departments; J. L. Pagaud, treasurer; E. P. Joyce, secretary, and Frank H. Waggaman, salesdirector.

The Capital City Auto Co. will soon be in the new home it is building for itself on

Julia Street, between Carondelet and St. Charles.

Encondition of the contract of

The Automotive Sales Co. has just opened new sales and showrooms in New Orleans, and is occupying the entire three stories of the building at the corner of St. Charles and St. Joseph.

The Miller Tire Co., which only recently opened a branch in this city, is moving into new quarters on Tulane Avenue.

Demand for trucks throughout the South is increasing at a more rapid rate than even the most optimistic dealer expected, according to R. M. Mills, president of the Liberty Auto Service Co., distributer for the All-American truck, a standardized product.

MILWAUKEE

Sees Better Deliveries

MILWAUKEE, WIS., July 31—Improvement in the passenger car supply is indicated by the arrival of a few trainload shipments and the promise that from now on deliveries will be facilitated in every way possible, according to leading local dealers, who discern much that is encouraging in the situation as August approaches. The strenuous effort of manufacturers to meet the overwhelming requests of dealers seem to be beginning to have effect. It will, however, require more improvement before all demands have been met and the army of new car buyers satisfied.

Closed cars never before were wanted so much and in such large numbers as now, despite the fact that the hottest weather of the year has been the rule for several weeks. In general, local dealers have almost twice as many orders for closed models as they can hope to get before Jan. 1. The climate of Milwaukee and Wisconsin is such that closed cars are ideal both for winter and summer use and if the cars were available a very large number would be taken by people who have to be satisfied with open models, and under present conditions are mighty glad to get even those.

One of the most interesting announcements in the local field for a long time was that telling of the change in the management of the Kissel Kar Co, 178-180 Seventh Street, distributer of the Kissel in this territory. Herbert W. Bonnell, widely known for his connection with the Mitchell in the Wisconsin territory for more than eight years, has become manager of the Kissel Kar Co., succeeding Frank J. Edwards, who retired to devote his time to the Dodge distribution and his extensive manufacturing possessions, which include the E. & W. commercial car attachment for passenger car chassis. Bonnell is a merchandiser of ability.

INDIANAPOLIS

Sales High Despite Heat

INDIANAPOLIS, Aug. 1—Extremely warm weather during the last week is affecting the motor car business to a certain extent, but it is giving the dealers a chance to catch up on deliveries. Trade is still good, but there is a slight decrease in the demand for cars.

Notices were sent out July 22 advising that space in the Indianapolis Auto Trade Association's nineteenth automobile show to be held in conjunction with the Indiana State Fair, Sept. 1-6, was ready for distribution. In the three days following the announcement the management received reservations for more than 24,000 sq. ft., the number making reservations representing less than one-half of the association membership Thus it appears that with even a magnificent new building, with its 85,000 sq. ft. of show space, the management may be compelled to turn down many applications.

F. C. Hogue, formerly a garage owner here, has given up the garage business and has taken the agency for the Moore 30 car.

Master Trucks of Indiana, distributers of the Master truck in the state, have taken the agency for the Scripps-Booth.

The Tower Motor Truck Co. has established a factory branch here with C. H. Warren as district representative. The factory will maintain a service station here and will carry a large stock of parts.

The E. W. Steinhart Co., distributer of the Cadillac and Dodge, has let a contract for a three-story reinforced concrete building to be erected at Richmond, Ind. The building will be used as a branch.

A new garage of the Jasper Machine Co. at Jasper, Ind., the largest in Dubois County, was opened Tuesday night with a community dance. The concrete floor of the entire building was utilized by nearly 2000 dancers who came from all parts of the county.

Service station operators here have until Aug. 4 to remove curb gasoline pumps. Orders for the removal of all downtown curb gasoline pumps were issued recently by the Board of Public Safety.

Charles C. Walsh has been appointed sales representative for Michigan and Indiana for F. R. Blair & Co., Inc., New York City, manufacturers of Flexite products.

ST. LOUIS Wants More Cars

ST. LOUIS, Aug. 1—An increasing demand, a greater shortage and longer deliveries, with loud howls for cars, is the general situation in St. Louis. Here and there is a slight improvement, but, as a whole, conditions are reported as being worse. The dealer of one standard make of motor cars is not able to make deliveries within less than eight weeks and some forty days, while one dealer has been assured by the factory that deliveries can be made in ten days.

Most of the St. Louis dealers have been visiting the factories within the last few weeks in an effort to hasten deliveries. It is a relief to many to get away for a few days from the insistent personal and telephone calls from the public, which wants to know when cars are going to be delivered.

More than 2000 persons attended the second annual boat excursion of the St. Louis Motor Accessory Trade Association, on the steamer J. S. recently. Many members of the Automobile Dealers and Manufacturers and Storage Battery Trades associations were present. The excursion was in charge of committees composed of E. J. Methudy, E. S. Marvin, W. L. Patterson, L. E. Allmon, E. C. Bartholomew and John McGauley.

Harry H. Hawke, general sales manager of the Traffic Motor Truck Corp., announces the appointment of J. Albert McCollum as advertising manager. McCollum has been in charge of motor car advertising for the St. Louis Republic for several years. G. Elmo Holke will remain as assistant advertising manager and will edit the house magazine, "Horse Sense."

William L. Johnson of the Johnson Automobile Co., oldest Ford dealer in St. Louis, has been made treasurer of the St. Louis Automobile Manufacturers and Dealers' Association, succeeding W. S. Roberts of the J. I. Case Co. Roberts, who came to St. Louis eight years ago for the Case company, has gone with the Vesper Automobile Co., Kansas City, of which Walter H. Vesper of Oklahoma City is president. He is a brother of F. W. A. Vesper of St. Louis, president of the N. A. D. A.

E. A. Hatfield, president of the Mississippi Valley Motor Co., Oakland distributer, expects its new branch building at Memphis to be ready for occupancy about September 1.

C. B. Harvey, for eight years in the motor truck business and at one time district manager for the Armleder Motor Truck Co., has joined the truck department of the Packard Motor Car Co.

C. O. Stewart has returned to the Weber Implement and Auto Co. sales force after four months' service with another concern.

The Auto Tite Sales Co. has been appointed distributer for the General Tire and Rubber Co., Akron, O.

There is considerable talk in motor circles of a movement for a Saturday half-holiday. While it is too late this season, it is more than likely that the rule will be put into effect during next July and August.

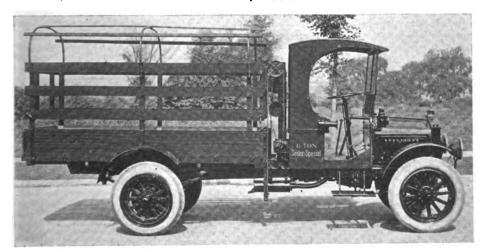
Scott Gardner has been made district representative of the Lewis Automobile Co. He was recently discharged from the military service, holding a commission as lleutenant. He succeeds E. A. Stagg, who will manage the distribution of the Cleveland for the Lewis company.

C. W. Corcoran has been appointed manager of the Packard branch at Springfield, Mo. Mr. Corcoran has been in the motor car field here for many years.

Henry Ziegenhein has joined the sales force of the Park Automobile Co., Peerless distributer. He is well known in the St. Louis field.

Bert Gamble has been appointed district representative for the Superior Motor Car Co., Lexington distributer.

The Glenn Tire and Vulcanizer Co. has opened a downtown branch at 620 Olive Street for the sale of Cupples tires and Rhinos tubes. The cash-and-carry idea will prevail at this branch.



A stock body, convertible into five types, has been made for the Selden truck as an appeal to the farm trade. With it, the car may be used with platform body, express body with 14-in. sides, stake and rack body, hand-operated dump body and the covered stake and rack or caravan body. Each one has a special use on the farm and, with the five, it is believed the farmer should be able to meet all his needs. This body, made by the factory, is sold with the stock 1½-ton A, the chassis price for which is \$2,185

DES MOINES

Truck Dealers Active

DES MOINES, IOWA, July 31—Iowa is to have a big motor transport and good roads day at the state fair this year. The state fair board is co-operating with the truck dealers of Des Moines to make the affair a success and has named Friday, August 29, for the event. This is the same day as the motor car races, and it promises to be a big motor day.

The Des Moines Motor Truck Association is taking the lead in promoting the event and has named a committee, of which J. M. Ombler, of the Firestone Tire Co.'s "Ship-by-Truck" bureau, is chairman, to engineer the day. A publicity campaign is now under way to interest all the truck dealers in central and southern Iowa in the affair. It is proposed to have between 300 and 500 trucks in a big parade that will form outside the fair grounds and make the complete tour of the grounds and then circle the race track in front of the amphitheater. The parade will be in two sections, one for the manufacturers and dealers and one for operators.

The truck association is also making preparations for a big meeting of the truck dealers of the state to be held in Des Moines, August 12, the day on which the National Motor Truck Development tour reaches Des Moines.

C. Garrington, recently manager of the Des Moines branch of the Times Square Co., has opened the Hawkeye Auto Supply Co. at Tenth and Locust Streets. The firm will carry a complete line of automotive equipment for trucks and cars and will handle Brunswick tires.

The Electric Starter and Ignition Service Co. has recently opened a service station at the quarters formerly occupied by the Fisk Tire Co. on Thirteenth Street. G. L. Gaskell, Detroit, who recently returned from service overseas, is president and manager of the new concern.

Newton's Auto Salvage Co. has added a line of bodies for Ford cars.

A. E. Stickle, formerly an advertising writer on one of the Des Moines dailies, has been made sales manager for the Jeffrey Auto Tire Co. The Jeffrey company has recently become state distributer for Howe tires.

The Velie Motor Co. will have a new building at 620 Second Avenue for its Cedar Rapids salesrooms.

A new garage and salesroom is to be built by the Shoberg Motor Co., Sioux City, Iowa, to cost more than \$100,000. The building will be three stories, 75 x 150 feet, and the exterior will be finished in white terra cotta and marble pillars. Three entrances, all on the street level, will give access to the building.

The Waterloo Auto Supply Co. has become distributer for Transport trucks and will handle twenty-five counties in northeastern Iowa.

KANSAS CITY Dealers Change

KANSAS CITY, MO., Aug. 2—The Victor Motor Co., handling the Davis car, will occupy a new building at 1514 McGee Street, now being erected for it.

E. F. Williams, Franklin distributer, will complete his two-story building on McGee Street, near Nineteenth, early this fall and plans to sublease a portion of it to W. E. Saum, Roamer and Templar dealer.

The Buxton-Phillips Motors Corp., Chalmers and Maxwell distributers, have opened a Salina, Kan., branch, with T. Frank Briody in charge. Briody has been for three years with this corporation and previously was three years with Overland.

A. W. Daley, who recently sold his retail Nash passenger car business to the Neal Motor Co, has gotten back into the industry in a big way. He has the contract for Paige passenger car sales in seven counties around Kansas City. He took possession of the four-story building, 2112 Grand Avenue, Aug. 1, and is installing new service equipment. Hugh Grogan, several years traveling service representative of the Paige factory, is the service manager and T. D. Trumbo, 13 years with the Studebaker branch here, will handle the accounting department.

Urban C. Severin of the Kansas City Motor Co., who has been distributing the Comet car, has added the Tulsa Four. He has Kansas and Missouri on the new line. There are two Severins in the motor business in Kansas City—Urban C., president of the Kansas City Motor Co., and H. T., who distributes the Elcar under the name of the Severin Motor Co. F. H. Hoxsie has become sales manager of the Kansas City Motor Co.

L. F. Rowlett is one other mechanic who has been successful in the selling end. From the Oakland factory service he went to the Boston branch, and then to Kansas City, where Oakland owners know his mechanical ability. He graduated into the sales department three years ago, in the Oakland branch here, and now has become retail sales manager of the Tri-State Motor Co., Elgin distributer.

Another motor car battery is now being manufactured in Kansas City, the "Campbell." It is made by the Campbell Electric Co., 1408 McGee Street, of which E. W. Campbell is president. Campbell has maintained electric service establishments in Kansas City for several years. M. W. Ramsey is sales manager of the company.

The Packard Kansas City Motor Car Co. is getting its organization into going shape. George H. Parrish, formerly with the Burroughs Adding Machine Co., is general manager of the company, assuming these duties during July; Major Le Roy Simons, recently returned from a year's service in connection with Liberty

engine work, has been made sales manager.

The Harry S. Earhart Motor Co. is showing what can be made of the used car business; Earhart is about to move into a four-story building, 50 feet frontage, 1621-23 Main Street, remodeled for his purposes, the largest building devoted to this business in the Kansas City territory.

COLUMBUS Has Car Pound

CLEVELAND, Aug. 2—George W. Booker, president of the F. B. Stearns Co., automobile manufacturer, has announced that the company plans to construct immediately an addition to its plant at the northwest corner of Euclid Avenue and Lakeview Road. Plans have been prepared and work is to start within ten days. It will be a 4-story brick structure, with a front of 200 ft. and a depth of 400 feet.

When the building operation arranged for is completed, the Stearns plant will occupy only about one-half of the property held by the company. The undeveloped land will be held for future use. The new factory addition will enable the company to increase its production greatly. The concern is now turning out twelve to fifteen cars daily. When the building program is completed the production will be advanced to 7000 cars a year, or an increase of approximately 60 per cent.

Columbus has a vehicle pound and an ordinance which provides that all vehicles which violate traffic rules shall be arrested by police. It costs \$3 to get it out, provided the owner calls for it within 24 hours. If the car is left there longer than 24 hours it costs an additional 50 cents a day. Before the vehicle pound law was established last December, traffic violators were notified to appear in police court. Frequently prosecution was dropped. During the first month the pound was operated 330 cars were confiscated. Now only 60 or 70 a month are taken. Failing to park properly is the usual offense.

NEW YORK

Talks Body Show

NEW YORK, Aug. 5—Dealers all along the row are discussing a proposal raised by several of their number for a closed body show, to be held in midautumn. With the trend of metropolitan buying toward this class of cars, many in the trade believe a fall show to exhibit the current models would be well attended, and would produce sales sufficient to cover its expense. Definite action on the proposition, which would be conducted locally, and wholly independent of the N. A. C. C. show in Janu-

ary, is expected within a week or two. The white-front building on Columbus Circle which has housed the Automobile Dealers' Association and the Motor Club, Inc., is the home now only of the former organization, the Motor Club having ceased to exist July 31. The membership of the two societies was duplicated i quite a degree, and Motor Club members who belonged only to that organization will be taken into the dealers' association upon approval of their applications by the board of directors.

The New York Packard sales force, 180 in number, went to Travers Island to-day on their annual convention and outing

BOSTON

Truck Owners Organize

BOSTON, Aug. 2—As an aftermath of the big fight against increased motor truck fees this year, with the prospect of greater fees for both cars and trucks next year, there has just been organized the Motor Truck Club of Massachusetts. The burden of fighting the truck fees this year fell upon the dealers and a few individuals. Now they will have active co-operation with a truck club comprised of owners, who can work with the Garage Association of Greater Boston, the Massachusetts State A. A, the Bay State A. A., A. L. A. and other organizations.

James J. Harrington, manager of the New England branch of the Ford Motor Co., had been promoted to be manager of the branch at Copenhagen. R. P. Jones, manager of the Washington branch, has been sent to Boston to succeed Mr. Harrington.

LOS ANGELES Has Truck Fight

LOS ANGELES, Aug. 3-There is going to be a lively battle between the railroads and motor truck operators in Southern California. Already the railroads are showing their hand by oppos-ing the issue of franchises to motor freight lines. The railroads make the threat that if motor freight is permitted in competition with rail the populace will lose the class of rail service now provided. Politics may get into the controversy, as the Board of Public Utilities has held up applications for motor freight lines in response to the plea of the railroads. What is needed in Los Angeles when such occasions arise is an organization of truck owners and dealers who have the nerve to stand up and fight back.

W. P. Herbert, who has obtained the Southern California distribution for the Cleveland car, has announced he will erect a four-story structure at Eleventh and Flower Streets to house his interests.

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PACKARD PRICES TAKE BIG JUMP

Up \$200 to \$400—Peerless and Cole Announce Increases

DETROIT, Aug. 1.—The Packard Motor Car Co. has announced price increases on all models, both passenger cars and trucks. The new prices take effect immediately.

	New	Old
Line No. 325	Price	Price
7-pass. Touring	\$5,200	\$4,800
4-pass. Runabout	5,200	4,800
5-pass. Phaeton	5,200	4,800
7-pass. Landaulette	6,850	$6,\!550$
4-pass. Coupé	6,600	6,300
7-pass. Brougham	6,950	6,650
Chassis only	4,600	4,300
Line No. 335		
7-pass. Touring	\$5,550	\$5,150
7-pass. Salon Touring	5,550	5,150
7-pass. Limousine	7,150	6.850
7-pass. Landaulette	7,200	6,900
7-pass. Brougham	7,300	7,000
7-pass. Imperial		
Limousine	7,350	7,050
Chassis only	4,850	4,550
Trucks		
1½ ton	\$ 3,200	\$3,000
2-ton		3,400
3-ton	4,350	4,100
4-ton		4,450
5-ton	5,450	5,150
6-ton	5,700	5,400

CLEVELAND, Aug. 1—The Peerless Motor Car Co. has just announced a \$140 price increase on all of its models. Increasing cost of material and labor is given as the reason for the advance. The new schedule is as fcllows:

Δ1.1

	new	Oia
Model	Price	Price
7-pass. Touring	\$2,900	\$2,760
4-pass. Roadster		2,760
4-pass. Coupé	. 3,500	3,320
7-pass. Sedan		3,530
7-pass. Sedan-		
Limousine	3,900	3,720

INDIANAPOLIS, IND., Aug. 1—The Cole Motor Car Co. has increased the price of its line \$200. The new prices are now in effect. They are as follows:

	New	Old
Model	Price	Price
4-pass. Touring	\$2,795	\$2,595
7-pass. Touring		2,595
2-pass. Roadster	2,795	2, 595
4-pass. Sedan	4,095	3,895
7-pass. Sedan	4,195	3,995
Coupé	4,095	3,895

Tax Sales to States

NEW YORK, Aug. 4—Taxation on cars and trucks, as vell as parts and accessories, sold to any of the States or political sub-divisions is a new ruling of the Internal Revenue Department outlined in General Bulletin No. 332, just issued by the Automobile Chamber of

Commerce. The new ruling was announced on July 30 and, according to the bulletin, came entirely without warning. Trucks and cars are taxed back to October 3, 1917, while tires, inner tubes, parts and accessories are taxed from February 25, 1918. Members of the organization are asked to use their efforts to have the retroactive section of the ruling overthrown.

RESTA ESTABLISHED AS SUNBEAM AGENT

NEW YORK, Aug. 5—Dario Resta, who has obtained the American agency for the Sunbeam car, announces that he will specialize in the 24-hp. six-cylinder type, selling at \$8,000, also handling the 16-hp., at \$5,500. He has been expecting cars to arrive from England for over a month, but they have been delayed by unsettled labor conditions in the British Isles.

Resta has opened headquarters at 1834 Broadway, and hopes shortly to open salesrooms and a service station. He announces that Clifford Durant has taken the California dealers' territory for the Sunbeam.

Inter-City Truck Line Formed

LANSING, MICH., July 31-The first inter-city truck transportation company to make application for approval of its stock came before the Michigan Public Utilities Commission recently. It will be known as the Western Michigan Motor Transit Co. The purpose of the concern is to haul freight and establish warehouses for storage in the cities between which it will operate 15 trucks. The trucks will ply between Grand Rapids, Hastings, Holland, Muskegon, Fremont, Grand Haven, Allegan, Hart, Shelby, Ionia, Greenville, Belding, Kalamazoo, Lowell, Big Rapids, and Howard City. It is estimated the average cost of transporting freight by motor truck will be a cent a mile per 100 pounds.

SUGGEST BIG FOUR FOR MOTOR COUNCIL

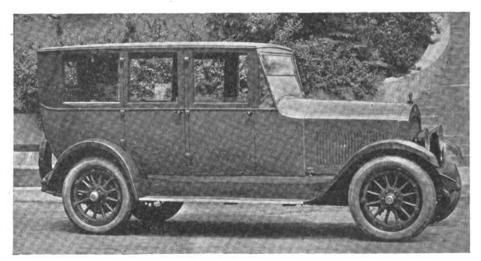
Reeves, Moock, Hemingway and Webster Proposed as Co-ordinators

NEW YORK, Aug. 5—An administrative council, or "Big Four" of the national automobile associations, to cooperate on problems of legislation, policy and other subjects vital to the manufacturing and merchandising of motor vehicles, has been proposed. It would consist of General Managers Reeves, Hemingway and Moock of the National Automobile Chamber of Commerce, Motor and Accessory Manufacturers' Association and National Automobile Dealers' Association, and Commissioner Webster of the Automotive Equipment Association.

The council would serve as a clearing house for the work of the associations. It has been taken up so far only in general terms, having been discussed last week by Hemingway and Moock when the former visited the headquarters of the N. A. D. A. in St. Louis.

Hemingway expressed surprise over the volume of legislative work being undertaken and accomplished by the dealer orgnization, and was particularly desirous of lending assistance in helping the N. A. D. A. to achieve the legislative program it has mapped out for the present year.

The dealer organization is committed to the Townsend highway bill. Bills repealing the excise tax on automobiles, trucks, and parts, a bill for the regulation of the use of the automobile in interstate commerce, forbidding a state to require a license on a car already licensed in another state and a bill to give Federal courts jurisdiction over the theft of automobiles stolen in one state and driven into another, are being urged upon lawmakers.



The Toursedan, one of three new all-season models introduced by the Cole Motor Car Company, Indianapolis. The two others are known as the Tourosine and the Sportosine. All have body construction of flush panel type, making a particularly clean job. An improved three-piece windshield is fitted. Finish is in gray or blue, with mohair velvet upholstery to match

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FORD MEN TO MARKET MILLION AUTOMOBILES

Managers' Convention Tackles Merchandising Problem of Coming Year

DETROIT, Aug. 4—Ford branch managers, in convention at the Ford Motor Co. plant since July 18, ended their meeting last week. There were forty-three managers present, thirty-five representing United States branches and eight from Canada.

The big problem coming before the meeting was the drafting of plans for merchandising the 1,000,000 cars the Ford company proposes to build during the coming year. The current fiscal year of the Ford Motor Co. ended July 31.

The manufacturing efforts of the company for the first six months of this year were concentrated entirely on the output of war materials and it was not until March, 1919, that the production of Ford cars and parts began to assume normal proportions. At present production is averaging 3000 cars daily and the output for the year ending July 31 will be more than 500,000 cars. The company was never so far behind in orders, having at present 143,751 on its books.

The managers have been informed that as soon as starter production equals car output all machines will be equipped with self-starters. At present, however, the company is able to secure only enough starters for its sedans and coupes. The starter is now being made at the Ford plant in a special department. It was also explained that some Ford cars have been equipped with demountable rims because the company found it impossible to secure a sufficient number of standard Ford rims. In order not to hold up regular daily production, it was necessary to use the demountable

rims when the supply of standard rims became exhausted. The situation is now rapidly righting itself.

SAYS DEALERS MUST EXACT PURCHASE BOND

ST. LOUIS, Aug. 2—A warning has been sent by Business Manager Harry G. Moock of the National Automobile Dealers' Association to dealers in Maryland, North and South Carolina, Virginia and West Virginia that they should require a bond for the payment of the full purchase price of cars sold on a conditional bill of sale. This warning follows a decision of the United States Circuit Court of Appeals for the Fourth District in a case styled the United States vs. One Saxon Automobile at Roanoke, the court holding that:

"No doubt has ever existed of the power of Congress to impose the penalty of forfeiture on property used to defeat the revenue laws without respect to the guilt of the owner or his knowledge of the unlawful use."

The case is similar to that in Georgia, where motor cars have been forfeited under section 3540, revised statutes f the U. S., providing for confiscation of vehicles used in transporting goods upon which the Federal revenue has not been paid. A warning was sent to dealers in Georgia, Florida, Alabama, Mississippi, Louisiana and Texas after this decision, which action was decided upon by the Board of Directors of the N. A. D. A., meeting at St. Louis in June. This case will be carried to the United States Supreme Court by the Georgia association.

New Name for Auto Parts

CHICAGO, July 31—The Auto Parts Co. has changed its name to that of the Continental Auto Supply Co. The concern is a manufacturer and jobber of automotive supplies, located on West Jackson Boulevard.

GROW TIRES WILL BE MARKETED NATIONALLY

BOSTON, MASS., Aug. 2—The present production of 300 tires weekly will be enlarged to as many daily as soon as additional machinery can be installed in the factory of the new Green, Dore & Morrison Co., at Canton Junction, Mass. This company succeeds the George Grow Co. Both cord and fabric tires of the rat tread type are being made, and branches are to be opened throughout the country, marketing nationally a product which hitherto has been sold only in New England.

The new concern is capitalized at \$400,000, with the stock practically all sold, according to announcement here to-day. George R. Green is president, with Charles F. Dore vice-president and Andrew H. Morrison treasurer. The directors are James H. Littel, William A. Robb, H. Blanchard Flint, Anthony Cumbra and George Hutchinson.

ra and George Hutchinson.

RALEIGH, N. C., July 31—The newly organized Interstate Motor Equipment Co. has commenced operations as wholesale jobbers of automotive equipment, with a capitalization of \$100,000. The company officers are A. L. Baker, president; J. S. McDonald, vice-president; Rufus Boylan, secretary and treasurer; W. M. Boylan, general manager, and Joseph R. Neger, sales manager and buyer.

New Jobbing House at Raleigh

Texan Prices Announced

FORT WORTH, TEX., July 31—Prices for the Texan, the passenger car and truck made here by the Texas Motor Car Association, were announced here as being \$1,250 for the two models of roadster and the touring car. Truck prices are to be \$1,200 for the %-ton model, with \$1,425 the list price on the 1½-ton chassis.



W. W. Barnett (at left, front row), Oldsmobile and Federal truck distributer at Denver for Colorado and adjacent territory, believes in promoting acquaintance among his dealers so that they feel they are all part of a big family with one aim. He also believes in mixing plenty of play with business as one way to improve business. So he called together his flock of dealers—and their wives—from a score of Colorado, New Mexico, Wyoming and Western Nebraska towns last week for a business expansion conference at the Brown Palace Hotel and a dinner party at Idledale, the Denver Motor Club's picturesque country home in Bear Creek Canyon, twenty miles from Denver in the municipal system of mountain parks. Delayed shigments, "special price" seekers, hot weather and all other annoyances were forgotten during the entertainment provided by this pioncer builder of motor car confidence and appreciation in the Rocky Mountain region.

MOOCK VISITS MANY CITIES FOR N. A. D. A.

Boosts Work of Association— Dealers Join Rapidly—Plan Additional Truck Runs

ST. LOUIS, Aug. 2—Harry G. Moock, business manager of the National Automobile Dealers' Association, has returned home after a visit through the Central Western States, spreading the gospel of good roads, truck transportation and cooperation through membership in the N. A. D. A. He visited Denver, his old home, Colorado Springs, Lincoln, Omaha, Des Moines, Kansas City, and Topeka.

Moock will depart next week to visit dealer associations at Indianapolis, Cleveland, Canton, Pittsburgh, Washington, Philadelphia, Baltimore, New York, Buffalo and Boston, and returning via Chicago will attend a meeting of the Minneapolis Dealers' Association in September.

Legislative matters will be taken up by Moock at Washington.

At Denver, Moock met with the Rocky Mountain Auto Trades Association, composed of dealers of Colorado, New Mexico and Wyoming, and there completed plans whereby the secretary, Harrison Goldsmith, of Denver, will devote all his time in the field canvassing for members for the Rocky Mountain Trades and the N. A. D. A. Moock addressed the Denver dealers on the subject of national legislation and, at his request, the association sent telegrams to the Colorado delegation in Congress asking them to support the Townsend highway hill.

Extremely hot weather and vacations made organization work impracticable in Lincoln, Neb., but an invitation was extended to Moock to return later in the year.

The president and the entire board of directors of the Omaha association are enthusiastic boosters of the N. A. D. A. as a result of Moock's conference there. Guy L. Smith, Hudson distributer, a director of the local association, assured Moock that he would personally solicit the Omaha dealers and that at the next regular meeting of the association he would propose a resolution to have the Omaha local pay the dues of the Omaha dealers in the N. A. D. A.

At Des Moines, Moock found that the attention of the Iowa Motor Trades Bureau is taken up with perfecting a strong state organization. John Rude, president, and A. J. Knapp, secretary, explained that when this matter is safely taken care of, plans will be considered for closer affiliation with the N. A. D. A.

Upon recommendation of President Imes of the Kansas State Association, Moock named Fred Bower traveling field secretary for the N. A. D. A. in Kansas. Bowers has been the assistant to Secretary Oliger of the Topeka Commercial Club and of the Kansas Automobile Trades Association. While at



Publicity for good roads construction is being fostered by the New Jersey Automobile Trade Association, which is sending stickers like the above cut to all its members, with the request that they be pasted on the windshields of their cars. The sticker is blue, with a red center and gummed on the edges so that it may be put on the glass without difficulty. It is an idea that many associations may follow with success.

RUN AIRPLANE TAXI NOW AT DES MOINES

DES MOINES, IOWA, Aug. 1—An airplane taxicab service, advertised through the newspapers, is the newest venture in this city. It has been opened by the Morrison Taxi Company, which also operates a line of cabs here, and makes its appeal to business men who have important engagements within a radius of 300 or 400 miles of Des Moines.

Announcements of the service are to the effect that a Curtiss biplane has been purchased by the company to be operated by E. H. Spears, a former army flier. Short sight-seeing trips or longer business journeys may be arranged, and it is expected that the "air line" will meet the expectations of those behind the venture.

Topeka, Moock attended the annual picnic and business meeting of the Kansas association.

Вративностиниционного другинатичностью положения по

A considerable part of Moock's time was taken up in spreading the gospel of good roads and truck transportation. Through J. A. La Due, of the Omaha Bee, active work will be taken up in a few days on a truck tour for the Omaha dealers, similar to that staged at St. Louis under the N. A. D. A. auspices. Des Moines dealers appointed a committee to prepare for holding a truck tour in September in which the Des Moines Chamber of Commerce will participate. Denver is considering a similar truck sales run.

Reports to Moock's office by St. Louis truck dealers indicate that hundreds of truck prospects obtained upon the truck tour are coming to the local dealers in the small towns and buying trucks. Many St. Louis distributers report having obtained new dealer contracts as a result of the trip.

IOWA DEALERS BOOST PLAN FOR FALL SHOW

Fort Dodge Builds Fair Ground Pavilion and Expects Better Business

FORT DODGE, IOWA, Aug. 1—The fall motor show of the Fort Dodge dealers will be held for the first time in October this year. Plans already are under way and a pavilion is in course of construction on the District Fair grounds to house the exposition, which will be held in conjunction with the fair.

The local dealers have taken up the fall show idea with their eyes upon future business. They have been considering such a show for some years but this is the first time concerted efforts have been made to obtain it. Although business has been unusually good this year, with deliveries far behind the demand, the fall fair is planned as a means of stimulating trade for the winter and spring.

The pavilion is being constructed with the particular plan of motor expositions. It will be available for the dealers for their spring show as well, giving them quarters that they have hitherto been lacking.

GEORGIA RECEIVES FIRST ROAD TRUCKS

ATLANTA, GA., Aug. 1—The first of the army trucks, a total of 162, that will be used for good roads construction in Georgia have arrived here and are awaiting distribution to the various counties in which the work will be done, as is contemplated in the Federal aid plan. The trucks already received are all of the 5-ton size, new, and were shipped from Camp McClelland, Anniston, Ala.

Louisville Co. to Build

LOUISVILLE, KY., July 31—A garage and service station costing \$40,000 will be erected here by the Kentucky-Indiana Truck Co. on ground just leased on the south side of Broadway, east of First Street, it was announced to-day. The company is now located at 411-17 West Liberty Street.

Ohio County Dealers Organize

FINDLAY, OHIO, July 31—The Hancock County Automobile Trade Association was organized at this place recently with a representative membership from all cities and towns in the county. The association has affiliated with the Ohio Automobile Trade Association, officials of that association being present to aid in the organization. H. S. Rosencrans of Findlay was elected president and E. D. Bishop, also of Findlay, was made secretary.

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TRUCK TRAIN STARTS ON 2,800 MILE TOUR THROUGH FARM LANDS

Thirteen Vehicles of Different Makes Set Out on Two Months' Trip Through Middle West to Demonstrate Efficiency of Pneumatic Tired Truck in Agricultural Work

CHICAGO, Aug. 4—To demonstrate to western agricultural sections that the pneumatic tired truck is an efficient farm machine, thirteen vehicles comprising the fleet of the National Motor Truck Development Tour left here this morning on a two months' trip through Illinois, Iowa, North and South Dakota, Minnesota and Wisconsin.

Frequent stops will be made along the route for purposes of demonstration. It is planned to have trucks do actual work in the fields and to furnish the farmer with a statement showing the cost of such work. Dealers' round-ups will be held at Des Moines, Sioux City, Fargo and Minneapolis. In addition to the regular farm demonstrations, this feature was added to the tour program at the last minute, as it was considered best to show the dealer at first hand the object of the tour.

All trucks are equipped with pneumatic tires and range in capacity from 1 to 2½ tons.

One truck is equipped with a farm light plant to supply electricity for a motion picture projection machine, which will be used to illustrate some of the lectures on motorizing the farm.

The truck convoy will be in charge of M. D. Scott, Goodyear Tire & Rubber Co., who has a great deal of experience as a tour master. A. R. Kroh will conduct the demonstrations and deliver lectures on the motorized farm.

The tour, to cover 2778 miles, is intended to demonstrate to prospective users and to the country generally the efficiency of the motor truck.

Only one truck is entered from each factory.

All trucks are pneumatic tired Trucks will range in size from one to 2½ tons.

In order to demonstrate the truck's practicability for farm use there is a truck body in the tour capable of carrying wheat, corn, oats, potatoes and other

small crops. There is a truck with a bed designed to carry loose hay. There is a truck body to carry hogs, cattle, etc.; in fact, a body for every farm purpose.

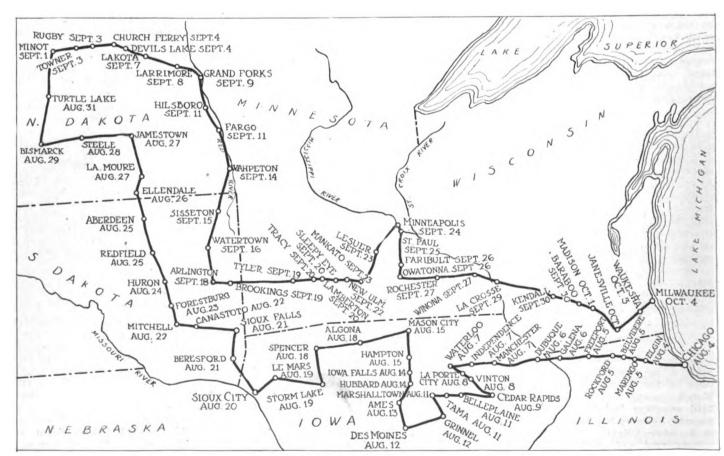
The tour will proceed slowly, covering on an average of 50 miles a day, stops of from an hour to two days being made in the towns en route.

Numerous demonstration loads will be carried. A truck will carry a load of hogs to town for a farmer, showing him how quickly it can be done, thus saving time which is vitally needed on the farm. The demonstration will also show at what a low cost for upkeep farm produce can be moved.

To quote a member of the National Association of Truck Sales Managers: "We have organized this tour solely to show the farmer the benefits to be derived from the purchase of a pneumatic tired truck. Time means money on the farm, as in every other industry. There is a labor shortage and a consequent speeding up of all farm activities to fill the gap. Trucks are not essentially city vehicles. They are being purchased by the thousands by farmers. We are running this tour on schedule time and with the assistance of the newspapers and farm periodicals we will keep each city and vicinity informed as to just what time we will arrive."

The Department of Agriculture in Washington is deeply interested in the tour and is co-operating through agricultural colleges and county agents. Moving pictures will be taken en route and will be exhibited all over the Ameri-

(Continued on page 45)



Route of Middle West Truck Tour, Showing Dates of Arrival at Principal Demonstration Points

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SUPPORT PLANS FOR NATIONAL HIGHWAYS

Senate Bill Calling for Trunk Lines Meets With Wide Approval

WASHINGTON, Aug. 2—The movement to construct a national system of trunk line highways intersecting each state, the cost of construction and maintenance to be borne by the Federal government, is gaining throughout the country, according to reports coming into the Federal Highway Council.

Many letters are coming in from practically all sections endorsing the movement and calling for explicit information as to the main points in the national highway measure, now pending in the Senate. It is expected to come up for further consideration at an early

The national highway bill, introduced by Senator Townsend, chairman of the Senate committee on post offices and post roads, is an entirely new piece of legislation. Its object is to build, in each state, trunk line highways to the extent of not less than two per cent nor more than five per cent of the total mileage of the state, and to join them with the main trunk lines of other states, thus creating a national system connect-

ing the entire country.

The decided trend in public opinion in favor of Federal construction of a national highway system is due, according to those having the measure in charge, to the fact that such mileage as each state will receive will put the state that much nearer to a complete and well connected state system, at the same time insuring logical connections with adjoining states. It is admitted that such connections are necessary to a properly co-ordinated system and that such co-ordination is logically a federal function.

The net result to each state, it now begins to appear, will be a strengthening of forces behind road development. The states on the one hand are to be aided by relieving them permanently of the construction and maintenance of the heaviest traveled inter-state routes, thus permitting the concentration of state effort on routes having their terminal points within the state. Thus, more effective cooperation of federal and state power is to be gained by each having its specific work laid out, one applying its efforts to national connections and the other to the development of local or intra-state roads.

Car and Truck Tax to Stand

NEW YORK, Aug. 5—General Manager Alfred Reeves and other officials of the National Automobile Chamber of Commerce, who conferred in Washington last week with Senators and Representatives, were convinced that there was little hope of bringing about a withdrawal of the revenue tax on cars and trucks. To speak plainly, Reeves

said, the Government needs the money, and officials do not listen sympathetically to arguments for tax elimination.

TRUCK TRAIN OFF ON 2-MONTH TOUR

(Continued from page 44)

can continent to show the value of the truck to the farmer.

A Jackie band has been donated by the Government and by this act the Washington officials have put their stamp of approval on the tour.

There will be a representative of the Chicago bankers on the tour who will discuss with the bankers en route the proposition of financing truck sales and keeping the "paper" in the home town.

Each of the following companies has entered one truck ranging in capacity from one to two and a half tons, in the

Atterbury Motor Car Co., Buffalo, N. Y. Bethlehem Motor Corp., Allentown, Pa. Clyde Cars Co., Clyde, Ohio.

Diamond T Motor Truck Co., Chicago, Ill. The Gramm-Bernstein Motor Truck Co., Lima, Ohio.

Martin Truck & Body Corp., York, Pa. Master Trucks, Inc., Chicago, Ill. Sterling Motor Truck Co., Milwaukee, Wis. Selden Truck Sales Co., Rochester. N. Y. Signal Motor Truck Co., Detroit, Mich. Service Motor Truck Co., Wabash, Ind. Republic Motor Truck Co., Alma. Mich. Winther Motor Truck Co., Kenosha, Wis.

FRANKLIN TO ENLARGE SYRACUSE FACTORY

NEW YORK, Aug. 5—The Franklin Motor Car Co. has begun work on an addition to its plant at Syracuse, and will put into effect at once a night shift of 500 men, the object of the two changes being to increase production eventually to 18,000 cars a year. The building operations will cost \$400,000, the work to be completed Jan. 1.

JAY MADE PRESIDENT OF THE PIERCE-ARROW

NEW YORK, Aug 5—John C. Jay, Jr., a business associate of General Goethals of Panama Canal fame, was elected president of the Pierce-Arrow Motor Car Co. at a recent directors' meeting when Charles Clifton, former president, was made chairman of the board.

Polack Has New Adjustment

NEW YORK, July 31—A new adjustment basis on all truck tires of the Polack line was announced by the manufacturers here to-day. The Polack Regular becomes 10,000 miles guaranteed while the High Crown is increased to 12.000.

The manufacturers—The Polack Tyre Rubber Co.—also announced that the postoffice department has awarded a contract for the use of their tires on postal trucks in nineteen large cities.

HOLDREDGE TRACTOR SHOW IS SUCCESS

Superiority of Local Demonstration Over National Shown by Nebraska Meeting

HOLDREGE, NEB., Aug. 2—If any one should doubt the advantage of a local tractor demonstration over a big national event as a sales force applied where it will do the most good in selling tractors to the farmer, he should attend one such event as that staged here yesterday and to-day.

He would see from 3000 to 5000 farmer men and women showing an immense personal interest in tractors and their performances. There will be none of that critical standoffishness so characteristic of a big show, but in its stead a close inspection of the machines in the search for the evidence that any one of them will meet the immediate personal need of the individual farmer.

Of course, sales at such events do not run into the millions, nor are any big distributer or dealer contracts made. Such things are left for national shows. But the men who engineer these local events, usually the local dealers and intimately known to every farmer who comes, are satisfied if their particular machines comport themselves with dignity and propriety under the circumstances which are local and which are measurably common to all the farmers there. These men are looking rather to the discovery and development of prospects than they are to the immediate sale, so they are very likely to get somewhere.

Fifteen makes of tractors are represented in this local demonstration. These are the Lauson, Waterloo Boy, Rumely, I. H. C. (two nodels), Twin City, Frick, Wisconsin, Fordson, Heider, Wallis, Parrett, Moline, Happy Farmer, Case (three models), Aultman-Taylor and Cleveland. All did practically perfect work, the only trouble experienced being plow trouble, and this was not at all serious and was due to soil conditions which every farmer present understood and allowed for.

In addition, seed bed preparation was shown by means of tractors pulling disk harrows and cultipackers, as also some of them pulled disk grain drills and one showed its versatility by pulling a manure spreader.

Paige Prices Go Up

DETROIT, Aug. 5—Prices of the Paige-Detroit Motor Car Co. models have advanced \$40 to \$90, due to the increasing cost of the materials used. The price increases go into effect at once, as follows:

	Old	New
Model	Price	Price
Paige Linwood, 39	. \$1,555	\$1,595
Paige Essex, 55	. 2,060	2,150
Paige Larchmont, 55.	. 2,165	2,255

MILK EXPRESS GREW TO FIFTEEN TRUCKS

Michigan Line Has Twelve Stations—Problem Is Variation In Loads

DETROIT, Aug. 2—Ira Wilson laid the foundation of a successful business six years ago when he adopted, at the suggestion of his son, Charles, a motor truck to haul milk from Elm, Michigan, 18 miles, to the Detroit Creamery. Now Ira Wilson & Son operate fifteen trucks from twelve stations.

Some idea of the size of this transportation job can be had from this table:

Stations	Miles to	Cans Average
	Detroit	Daily
Elm	18	100
Plymouth	32	200
Perrinsville	19	50,
Stark	20	20
Canton	23	65
Inkster	13	20
Willis	36	270
Belleville	28	200
Cherry Hill	28	98
Holland	13	35
Utica	25	180
$Milan\ \dots\dots$	42	140

The difficulty of the haulage proposition lies in the variations in number of the cans brought in by the farmers from day to day. For instance, a big heavy duty tractor with semi-trailer operates from Plymouth. The trailer will hold 204 cans—11.2 tons. Two days later, 232 cans were brought in by the farmers, which is more than can be loaded on the trailer. Accordingly, a four-wheel trailer was put behind the truck, operating out of Elm, and the surplus cans were brought in.

Willis is another fine example. Located 36 miles from Detroit and receiving an average of 270 cans daily, it presented quite a problem to Wilson. Three trucks start from here, each with 90 cans. After travelling 8 miles of dirt road, they stop at Belleville. This station receives about 200 cans daily, 130 being taken to Detroit by one truck, leaving 70 cans to be picked up by the three trucks from Willis.

Another truck leaves Cherry Hill with 98 cans, goes over 4 miles of dirt road, and at Inkster picks up 35 cans that are hauled from Canton by team, a bad road haul. This load of 133 cans is taken to Detroit.

A Correction

In Motor World of July 2 reference was made to improvements in the Acme 3½-ton truck resulting in a price advance of \$100, one of the changes noted being equipment of the vehicle with "a Continental E-7 motor, with flywheel attached." The item should have read, "with flywheel enclosed."

Spokane Firms Join N. A. D. A.

SPOKANE, WASH., July 31—Twenty-three Spokane automobile dealers have joined the National Automobile Dealers' Association as a result of the work here of Robert E. Magner, traveling field secretary of the association.

RESULTS OF WEST COAST ECONOMY RUN TOLD

LOS ANGELES, CAL., July 31—Detailed results of the Los Angeles-Yosemite Economy run made a few weeks ago have been made available. The contest was divided into three classes on a basis of price and the results were graded on a ton mileage. The distance was 374.5 miles. The amount of water consumed figured only in determining position for one trophy, which was awarded on a basis of the best showing on gasoline, oil and water. This was a special award and the following was the quantity of water used:

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The gasoline and oil economy results were as follows:

SEATTLE DEALERS BUY PROPERTY FOR CLUB

SEATTLE, WASH., Aug. 1—Announcement has just been made that the Seattle Motor Dealers' Association has purchased a 12-room residence here at a cost of \$25,000. It will be completely remodeled and used as a clubhouse and general headquarters.

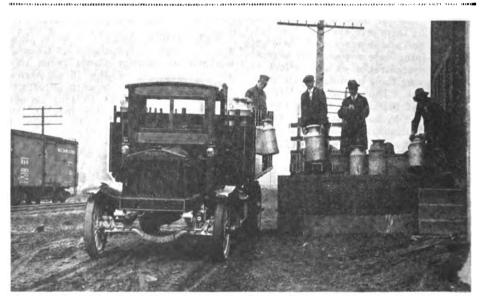
The dealers of Seattle are co-operating closely in their association work and the purchase of the new home shows to what extent they value the idea of being together in one central organization. The clubhouse is needed as a place where they can meet for discussions of business topics as well as for recreation purposes. Both features are being strongly urged and it is believed the clubhouse will serve to link them more closely together.

Building Speedway in Texas

DALLAS, July 31—R. L. McCoy, Detroit, Mich., president of the Little Motors Corp., and C. D. Overton, Dallas automobile dealer, have purchased sixty-five acres of land at Dalworth, half way between Dallas and Fort Worth, and will erect the finest and biggest automobile speedway in this section of the country.

The 1½ mile track, which will be of brick, and the steel grandstand, seating 50,000 persons, will cost upwards of \$150,000.

Cars Costing \$2,000 or Over at Factory Total Gal Miles per Weight Pints Ton Miles per Gal. Loaded Gas Us∈d Gallon Oil Franklin 3.470 28.8 13 49.98 16.8 22.2 11/2 41.2 Peerless 4,900 23.0 2 Templar 3,570 16.3 41 0 Stearns 4.790 22 7 16.8 39 4 Marmon 5,300 22 2 14.4 2 38.1 Cars Costing Over \$1,000 and Less Than \$2,000 Stephens 4,320 17.5 21.4 46.2 37.9 Mitchell 4,030 19.7 19.0 Lexington 4.060 21.7 17.2 5 35.1 Cars Costing Less Than \$1,000 40.5 28.8 Briscoe 2,810 13 38.1 24.3 15.4 Overland 3,230 15.7 23.8 38.0



One of the trucks that built up big Michigan business

CHANGES in the Trade

Т.с. свое**сновичения в размения в мартичения
Miss Lucite R. Collins has been appointed in charge of the personnel work of the branch of the B. F. Goodrich Rubber Co., 1221 Harmon Place, covering the stores at St. Paul, Duluth, Mason City, Iowa, Fargo, N. D., and Sioux Falls, S. D., including eastern Montana territory also. The innovation places a woman in charge of the educational and training classes and the welfare work among the 60 women. There are 200 employees to be looked after. Miss Collins came from the U.S. Employment Service in charge of the department for trained and professional women, and for years was in the editorial department of the Minneapolis Journal.

- J. Murray Page, until recently manager of the Chicago branch of the Locomobile Co. of America, has been appointed western district sales manager of the company. He will continue to make his headquarters in Chicago. C. B. Amorous, formerly director of Locomobile sales, succeeds Mr. Page as manager of the Chicago branch.
- W. J. Munro, assistant advertising manager of the General Motors Truck Co., has resigned to return to his position with the Green Fulton Cunningham Co., which handles the advertising of the G. M. C. truck.

wallace C. Hood has been appointed general sales manager of the Standard Motor Truck Co., Detroit. Mr. Hood held this same position with the Standard company four years ago. More recently he was sales manager of the King Motor Car Co.

i. B. Meers has resigned as general sales manager of the Panhard Motors Co., Grand Haven, Mich. He has not yet announced any definite plans for the future.

Mrs. E. J. Schoonmaker has been promoted from the cost accounting department of the Bantam Ball Bearing Co., Bantam, Conn., to the position of treasurer, recently made vacant by the resignation of Miss Ruth Edwards.

Waiter K. Towers, well known publicity director and editor, has assumed charge of the sales promotion division of the truck sales division of the Reo Motor Car Co. He was editor of the American Boy and later of Milestones.

Emmett F. Roche, Grand Rapids, Mich., has opened a tire and accessory store in that city. He will handle Mason tires.

Major J. C. McCullough, recently returned from overseas, has resumed his position with the Auto Owners Insurance Co., Lansing Mich.

C. F. Brown, former editor of the Alma (Mich.) Record, has been appointed Michigan sales manager for the Western Carburetor Co., Alma. T. Arnold Robinson has been made sales manager for New York State.

Elmer C. Wise, for nine years Ford dealer at Belding, Mich., has sold his interest in the garage and sales business to Frank Donovan. The firm was known as Wise & Cobb. Mr. Cobb retains his holdings.

Waldemar H. Jacob, who has been a lieutenant in the ordnance department of the army, has become distribution manager of the Bearings Service Co.

P. C. Chrylser has been appointed director of the whole department of Hurlburt Motors, Inc., the New York agents for the Hurlburt trucks. He formerly was manager of the l'hiladelphia branch of the Hurlburt company.

Bartiett J. Smith has been appointed eastern district manager, with offices at New York, for the International India Rubber Corp., makers of South Bend and Odell tires.

Will H. Brown, who was a lieutenant-colonel in the motor transport corps for Base No. 1, A. E. F., has been appointed supervisor of purchases and material for the Nordyke & Marmon Co., of Indianapolis, succeeding J. H. O'Brien.

- M. L. Massover has taken over sales in Ohio, Michigan, Indiana, Illinois and Wisconsin for Staff & Eckhouse, of Chicago, distributers of automotive equipment.
- K. P. Drysdale, former advertising manager of the Cleveland Tractor Co., and prior to that time with the Cadillac Motor Car Co., is about to join D. McCall White as advertising manager of the new automobile company. White is now organizing.
- M. L. Tooker has been appointed general sales and advertising director of L. Sooneborn Sons, Inc., with offices at New York. Mr. Tooker has just been discharged from service, having been a lieutenant of marines on the staff of the commandant of the Third Naval District. He also served as special engineer in the construction of the gas defense plant at Long Island City, N. Y.
- Alf. P. Fischiey, formerly with the district sales staff of the Kelly-Springfield Tire Co., Cleveland, O., has been appointed assistant to R. B. Pierce, Cleveland district manager.

Wilton A. Hardy, assistant production superintendent of the naval aircraft factory, Navy Yard, Philadelphia, has joined the sales force of the Z. S. Vertner Motor Sales Co. of Philadelphia, Pa., distributer of the Oakland in Philadelphia and vicinity.

E. A. White has resigned as head of the division of agricultural engineering at the University of Illinois to become research engineer for the Holt Manufacturing Co., Peoria.

Fred W. Jones, formerly with the advertising department of the International Harvester Co., has been made advertising manager for the Holt Manufacturing Co.

- R. I. Windterringer, branch manager of the Gillette Rubber Co., has been promoted from assistant sales manager to the district sales manager for eighteen states, with home office at Chicago.
- W. W. Crawford, Albany, Ore., has sold his Ford agency there to Charles Kirk and E. L. McKern. Mr. Crawford has held the Ford agency here for 12 years.
- C. H. Hamilton, former retail dealer for United States tires at Portland, Ore., has obtained the agency there for the Stephens Car which has not heretofore been represented in Oregon.

Charles G. Guild has succeeded Clayton O. Griffin as secretary of the Wayne Oil Tank & Pump Co. Mr. Guild formerly was manager of the Burlington Wheel Co. of Burlington. Ia.

Harry D. Benner, formerly manager of the eastern district for the Federal Rubber Co., has been named manager of the accessory sales department of the same concern. His offices will be moved from New York to Cudahy, Wis.

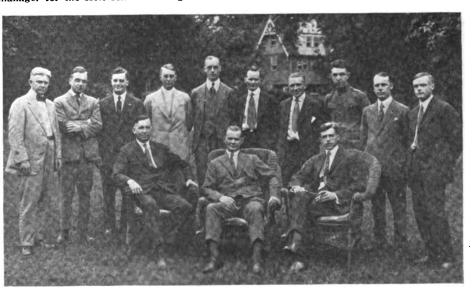
Mark Havenhill has been named regional agricultural director for the Southwestern territory by the Cleveland Tractor Co., with headquarters at Oklahoma City, Okla. He formerly was professor of farm engineering at the University of Kentucky.

George G. Bailey has become director of sales of the Hinkley Motors Corp. of Detroit. He formerly was sales manager of the Brown-Lipe Co., Syracuse, N. Y.

J. B. Renshaw, branch manager for the Studebaker at Cincinnati, has resigned. He probably will become a dealer, although plans are not completed.

Waiter W. Smith has been promoted to the position of assistant sales manager of the Nash Motors Co. Since January he has been manager of passenger car sales for that company.

C. E. Wilson, formerly of the Westinghouse Electric & Manufacturing Co., has been made manager of the motor and equipment division of the Remy Electric Co., with complete supervision of engineering and sales.



Sales officials of the L. H. Gilmer Co., Philadelphia, maker of Gilmer Wove: Automotive Equipment Products, held their first convention of the jobbers' division recently. In the photograph are seen: Standing, from left to right, W. H. Winn, Kansas City territory; M. D. Tracy, sales department; J. E. Chilson, Chicago territory; Donald C. Barbee, president of Badger Belt & Rubber Co., Wisconsin state representatives; George A. Young, special representative. Eastern territory; G. W. Gilmer, chief engineer; Harold Illing, special representative of Badger Belt & Rubber Co., Milwaukee, Wis.: Howard E. King, assistant sales representative, manufacturers' division, Detroit office; W. S. Lewis, manager, Detroit office; H. R. Disston, Philadelphia representative; seated, left to right, J. S. Krauss, treasurer; L. H. Gilmer, president; F. D. Williams, general manager.

COMING EVENTS

Races, Contests and Tours	New York, N. YJan. 3-10Grand Central Palace, National Automobile Chamber of Commerce, S. A.
*Eigin, Ill	ber of Commerce, S. A. Miles, Manager. Chicago, Ili
*Cincinnati, OOct. 1Speedway. *Trenton, N. JOct. 4Dirt track event. *Danbury, CoanOct. 11Dirt track event.	Commerce, S. A. Miles. Manager. Kansas City, MoFebFifth Annual, Kansas City Tractor Club, Guy H. Hall
*Tentative dates	Manager.
Meetings	Automotive Shows at Fairs
Philadelphia, PaSept. 22-24Annual Convention, National Association of Purchasing Agents, Bellevue-Stratford.	HarrisburgAugustCars, tractors, trucks, auto- motive equipment. J. Clyde Myton, Mgr.
Denver, ColOct. 1Directors' Meeting, National Automobile Dealers' Assn.	Sedalia, MoAug. 9-16 Tractors, Kansas City Trac- tor Club.
Atlantic City, NJOct. 14-17 Twenty-fifth Annual Convention, Marlborough - Blen-	Toledo, OAug. 19-22Lucas County Fair, H. B. Marks, Mgr.
heim, National Hardware Association of the United States,	Des Moines, IaAug. 20-29Machinery Hall. Columbus, OAug. 26-29Cars and Tractors. E. V. Walbor, Manager.
Chicago, Ili	Rockford, Ill
t'oreign Shows	Wheeling, W. VaSept. 1-5Cars, Trucks and Tractors. Hartford, ConnSept. 1-5Connecticut Fair Assn.
Paris, FranceOct. 15Grand Palais—International Automobile Manufacturers' Congress.	Rochester, N. YSept. 1-6Automobile Club of Rochester. E. F. Edwards, Manager.
London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers & Trades.	Spokane, WashSept. 1-6Cars, Trucks and Tractors. Milwaukee WisSept. 8-13Milwaukee Automobile Dealers, Inc. Bart J. Ruddle. Manager.
Tractor Demonstrations	Topeka, KanSept. 8-13Cars, Trucks and Tractors. Motor Hall and Machinery Field.
Fosteria, OAug. 6-7in charge of Prof. H. C Ramsower, head of Agri- cultural Engineering Dept	Huron, S. DSept. 8-13Cars, tractors, trucks, auto- motive equipment. C. N. McIlvaine, Mgr.
of Ohio State University Akron, OAug. 12-13In charge of Prof. H. C Ramsower, head of Agri- cultural Engineering Dept	Helena, Mont
of Ohio State University Aberdeen, S. D Aug. 19-21	Hutchinson, KanSept. 13-20Cars, Trucks and Tractors. Sloux City, IaSept. 14-20Cars, Trucks and Tractors. Yakima, WashSept. 15-20Cars, Trucks and Tractors. Springfield, MassSept. 15-20Cars, Trucks and Tractors. O. A. Nash, Asst. Gen.
Los Angeles, CalSeptemberRegional Tractor Demonstration under the auspices of the National Implement & Vehicle Assn.	Manager. Billings, MontSept. 16-19Cars, Trucks and Tractors. Memphis, TennSept. 20-27Cars, Trucks and Tractors. Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors J. S. Malone, General Man-
Streater, IllSept. 9-12Northern Illinois Tractor & Truck Assn. W. S. Peterman, Manager	J. S. Malone, General Manager. Pueblo, ColSept. 22-27 Cars, Trucks and Tractors
Ottawa, OntOct. 14-16Tractor and Farm Machinery. Experimental and Booth Farms, Inter-Pro-	J. L. Beaman, Manager. Salem, OreSept. 22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn.,
vincial Plowing Match and Tractor Demonstration.	M. O. Wilkins, Mgr. Allentown, Pa Sept. 22-27 Lehigh County Agricultural Assn.
Shows	Waterloo, IowaSept. 22-28Automobile show, in connection with Waterloo Dairy
Minnesota	Cattle Congress; Black Hawk County Motor Trades Bureau, G. V. Orr, Secre-
sories. Indianapolis Auto mobile Trade Assn., John	tary. Kansas City. KanSept. 24-Oct. 4.Cars. Trucks and Tractors.
B. Orman, Manager, Greenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett	Muskogee, OklaSept. 29-Oct. 4. Cars. Trucks and Tractors. Meridian, MissSept. 29-Oct. 4. Cars. and Tractors. A. H. George, General Manager.
General Manager. Cincinnati, OSept. 18-20Ninth Annual, Music Hali Cincinnati Automobile Dealers' Assn., H. K	Chattanooga, TenaSept. 29-Oct. 4. Chattanooga Auto Dealers Assn. Brockton, MassSept. 30-Oct. 3. Cars. Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn.
Springfield. Mass Sept. 15-20 Eastern States Exposition. J O. Simpson, General Man	Columbia, S. COctoberColumbia Automobile Dealers Assn. Northampton, MassOct. 1, 2, 3Three-County Fair. S. E.
Betroit, MichOct. 6-11Closed Cars: Detroit Dealers'	Hickman, Mgr. Raleigh, N. COct. 20-25Cars, Trucks and Tractors.
Assn Arena Gardens. Chicage, III	Shreveport, LaOct. 22-27Cars, Trucks and Tractors Jacksonville, FlaNov. 22-29Florida State Fair and Exposition. B. K. Hanafourde. Mgr.

Chicago Motor Trade's Orphans Outing

CHICAGO, July 31—The Chicago Automobile Trade Association, which for years has fathered the annual orphans outing through the Orphans' Automobile Day Association of Chicago, is planning to take the orphans and the people in

the Old Folks Home on a motor tour and picnic, August 19. Other organizations which are co-operating are the Chicago Garage Owners' Association, the Electric Vehicle Association, Chicago Motor Livery Association, and the Chicago Automobile and Motor clubs. Andrix Lock-Nut Gets Factory

ADRIAN, MICH., July 31—The Adrian Lock-Nut Co., financed by Detroit and Adrian parties, has purchased the Austin & Rose planing mill property, Locust and Michigan Streets, for the production of lock nuts and specialties.



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Number 7

NEW YORK ALE

Fifteen cents a capy Three dollars a year

Note the Permanence of Hudson Dealers

97% of Our Product is Handled by Distributors Who Have Been in the Hudson Organization Six Years or More

Ninety per cent is handled by men whose connection is more than 7 years.

These figures tell a graphic story of careful organization welding that is unique in the shifting fortunes and failures that attend so many automobile ventures.

It puts the question straight to you.

Will you connect with a time-proved organization, selling a time-proved car and build yourself into a permanent, profitable future?

Automobile history is strewn with business wrecks. How many automobile manufacturers have failed in the comparatively brief period of the business? They have carried down some excellent and capable dealers with them and their most valuable assets of hard earned prestige was lost.

The sure way to build prosperity and permanence is with a company whose product and organization have won a place of permanence in the business world.

With the Hudson you sell a world-famed car, that confers prestige on the dealer, in any community. Unequaled for achievement, the Hudson Super-Six is the largest selling fine car in the world. It has held this leadership for four years.

A Hudson franchise means more to you than the immediate profits, which it surely brings also. It means association with successful business men and leaders. And it means the greater capital of prestige, which go with the name, the reputation and the deeds of the Hudson.

But perhaps to you the greatest thing that the Hudson franchise stands for is permanence and security for the business you put your heart, head and hand in.

There may be an opening in your territory. At least you should take the opportunity to find out. Write now. It may mean a Hudson connection for you.



Hudson Motor Car Company Detroit, Michigan

(1)



THE widespread and heavy demand for Nash passenger cars and trucks throughout the country is only the logical result of the high character of their performance in owner service. Nash dealers are now profiting from this demand. They are doing a volume business on these Nash products of unusual value.

Nash Passenger Cars

5-Passenger Car, \$1490 2-Passenger Raodster, \$1490 Sedan, \$2575 4-Passenger Coupe, \$2350 7-Passenger- Car, \$1640 4-Passenger Sport Model, \$1595

Nash Trucks

One-Ton Chassis, \$1650 Two-Ton Chassis \$2250
Nash Quad Chassis, \$3250

Prices F. O. B. Kenosha

The Nash Motors Co., Kenosha, Wis.

Manufacturers of Passenger Cars and Trucks
\Including the Famous Nash Quad

NASH MOTORS

VALUE CARB AT VOLUME PRICES



239 West 39th St., New York City. 'Phone Bryant 8760 PUBLISHED EVERY WEDNESDAY BY

The Class Journal Co.

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<u>"NORMA"</u> PRECISION BALL BEARINGS



The measure of value of a car, truck, tractor or power boat, is its capacity for rendering service—for returning dividends in pleasure or profit. On this basis, continuity of service—uninterrupted operation —determines earning power. The failure of one small bearing in the electrical apparatus puts an end to earnings—until repairs are made.

Their proved capacity for continuous service has made "NORMA" Bearings the standards in those magnetos and lighting generators internationally known to be trustworthy and dependable.

Be Sure—See That Your Electrical Apparatus Equipped. "NORMA"



THE NORMA COMPANY OF AMERICA

1790 BROADWAY

NEW YORK

Ball, Roller, Thrust and Combination Bearings



ROSS GEAR & TOOL COMPANY, 725 Heath St., Lafayette, Ind.

Optimism and Energy Will Move the World

Selling Optimism

(From The Manufacturers Record)

For months the United States government urged all business men to realize that they could "sell" prosperity to the country by big, bold advertising. It urged everybody to advertise heavily; if they were already advertising, to increase their expenditures and broaden their publicity campaign; and if they were not advertising, to begin an aggressive campaign.

Never was better business advice given. never was it more fully accepted, and never was there a greater demonstration of the wisdom of such advice. Business men everywhere commenced to advertise more freely and on broader lines. Many men who had never done much advertising saw a new light and began to advertise, while old-time advertisers made larger appropriations and gave greater heed to the almost limitless power of publicity.

The result is everywhere in evidence. The confidence displayed by heavy advertising begat confidence. The optimism of advertisers created optimism, and the pessimists slunk back into their holes and pulled the holes in after them—permanently buried face downward, as is the just dessert of everyman who becomes a pessimist in America.

Largely as an outcome of this splendid work, vigorously conducted by the Secretary of Labor and to whom great credit is due, every one now realizes that the country has taken the right road at the forks, and, instead of traveling toward the land of poverty and anarchy, is headed straight on the road to the land of abounding national prosperity, and this glorious change is largely due to the power of advertising, which created an air of optimism, and as a nation thinketh in its heart, so is it.



GRAY & DAVIS Ignition establishes a new standard of ignition. It is not an experiment, but the completed result of 4 years' intensive engineering effort to create a better, simpler and more dependable system. Leading automotive engineers voice the opinion that the G & D system rightfully takes its place as the foremost product of its kind—the finest ignition equipment the industry produces.

GRAY & DAVIS, INC. BOSTON, MASS.

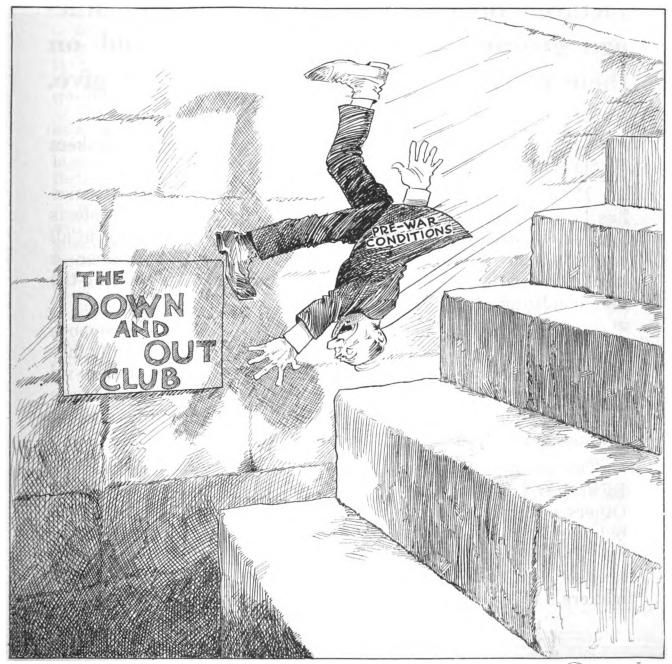
Starting · Lighting · Ignition

Vol. LX

New York, U. S. A., Wednesday, August 13, 1919

No. 7

A New Life Member



Who's Next?

NO MORE TIRE

The Howe Rubber Co. says:

Continue this campaign until the tire manufacturers do away with this elusive tire mileage guarantee and have all tires sold on their merit and the service they will give.

HE days of the tire guarantee, one of the chief trouble-makers in the automobile industry, are numbered.

Motor World's campaign for elimination of the nuisance has been like seed sown in a fertile field. The crop of protests against a senseless, wasteful, annoying practice is growing in all parts of the country. The harvest is ready for the reaper—a straightforward announcement by the manufacturers placing the merchandising of tires on a quality basis.

The public would like to BUY TIRES AS TIRES, not as coupons for a trip across the continent and back, or something equally fantastic. Dealers would like to SELL TIRES AS TIRES, and be rid of the ADJUSTMENT OUTRAGE, which keeps them between the devil of the buyer and the deep sea of the manufacturer, making life just one argument after another.

Tire producers, among them GOODYEAR and HOWE RUB-BER, have written Motor World, commending its campaign. Others advocate the reform—in the privacy of their offices—but there is too much waiting to see what the other fellow will do. Dealers are voicing their approval of the crusade, but the need of the hour is a get-together policy on the part of the makers.

GUARANTEES

Read what John Tenney, Jr., President of the Howe Rubber Co., New Brunswick, N. J., has to say about the problem:

I wish to offer my congratulations on the stand you have taken in regard to doing away with the definite mileage guarantee on automobile tires. I have always felt that the guarantee of certain mileage on tires was a mistake and I could see no reason why tire manufacturers should guarantee mileage any more than a shoe manufacturer would guarantee that his shoes would last a certain number of years.

The mileage guarantee is an evil which crept into the business originally as a sales argument; but it has been abused, both by the consumer and by the manufacturer; so now I do not think either is satisfied. For the good of the business in general it would seem better for manufacturers to guarantee their tires for workmanship and material, and do their adjusting on a service basis

We all know that a tire properly made and run under proper conditions will give good service and in many instances more miles than the published guarantee, and if a tire is abused, no matter how well it may have been made, it can be ruined in a few miles and then if guaranteed for mileage it is up to the manufacturer to adjust, which he does, but not always on a basis that is satisfactory to the consumer or to the manufacturer.

When a consumer buys a tire and pays a reasonable price he should be entitled to service from that tire, and to-day he will get such service from any legitimate tire manufacturer without any specified guarantee; so why fool ourselves and guarantee mileage to those who abuse tires and take it out on the one who takes proper care of his tires?

Hoping you will continue this campaign until the tire manufacturers do away with this elusive tire mileage guarantee and have all tires sold on their merit and the service they will give, I am,

Very truly yours,
JOHN TENNEY, Jr.

U. S. Rubber Buys 25,000 Copies of Editorial

Headquarters officials of the United States Rubber Co. in New York, showing the keenest interest in Motor World's campaign, have purchased 25,000 copies of the double page editorial in the issue of July 30, FOR DISTRIBUTION. [SEE PAGE 10]

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[NO MORE TIRE GUARANTEES—Continued from page 9.]

Read What a Dealer Says:

W. H. Wray, motor vehicle dealer in Gastonia, N. C., writes Motor World as follows:

I want to say "Amen" to your article of July 30, regarding the tire guarantee.

I am 100 per cent with you on this and have expressed my opinion to different tire men who call on me.

Guarantees are trouble-makers. Sell the tires at a price which, without the guarantee, will be less than prices with guarantees. The manufacturers, dealers, car owners, etc., will all live longer, for we will have less worry.

I find that the guarantees of some of the manufacturers amount to very little. They holler guarantee from start to finish, but take them a defective casing and the trouble is always with the driver, never the fault of the casing, and they seem to think that it would be impossible for their factory to make a bad one. On the other hand, some are imposed upon by the owners or drivers.

Another thing, I would like to see you work out a remedy for price-cutting. I do not find much of this among car dealers; but my, how hardware stores, etc., do cut the price!

If something is not done tire manufacturers are going to work themselves out with dealers into the hands of hardware and grocery stores.

I can't sell cord casings, say 34 by $4\frac{1}{2}$, for a profit of \$1.50 to \$2 per casing; yet this is done in my city.

Go to it! Here's wishing you luck in banishing the tire evils.

Just a Word from Albany

E. V. Stratton, of the Albany firm bearing the same name, would cut out all kinds of guarantees. In a letter to Motor World he says:

Your article, pages 8 and 9, of July 30, is to be commended; but why limit the propaganda to tire guarantees? Why shouldn't the same thing apply to car guarantees as much, if not more? All you say about gloves, shoes and clothes, etc., applies equally well to motor cars.

Thermoid Rubber Asks for Reprints

The Thermoid Rubber Co., Trenton, N. J., offering its services to help carry on the "no tire guarantees" movement, writes as follows:

We have noted your article, which appeared in your July 30 issue, which had reference to tire guarantees.

[NO MORE TIRE GUARANTEES—Continued from page 10.]

Could you possibly spare us about fifty copies of this advertisement, so that we may use it in our sales force?

If you can spare the advertisements, you may rest assured that we will try to carry on the good work which you are advocating, and possibly help you in the results to be accomplished.

Goodyear in Sympathy with Campaign

The Goodyear Tire & Rubber Co., Akron, O., stating its hearty sympathy with Motor World's attitude, as far as mileage guarantees are concerned, upholds, under prevailing circumstances, its products free from defect. The company forwarded several of its announcements on the guarantee question, from which salient paragraphs are quoted:

One of the pleasantest fictions of the tire business is that a manufacturer can repair with a pen what he had failed to accomplish in his factory.

Upon no less fallacious a ground rests the virtue of the definite mileage guarantee.

But the difference between mileage as adjusted over a counter and mileage as delivered on the road is pressing hard for recognition upon the intelligence of the American automobile owner.

And the guarantee fast is coming to be seen for what it is—a confusing and unnecessary formality in the case of a good tire, a disappointment and delusion in the case of a bad one.

Why should you trust a tire-maker's signature if you cannot trust his product?

And why, if you can trust his product, should you ask his signature to a mileage guarantee?

No man can write miles into a tire—he must build them there.

At the last, it must be recognized that the miles a tire delivers spring directly from the structure and substance that resist the punishment of the road—and not from any written estimate of the virtues such elements may possess.

And it must be admitted, also, that there is small consolation for the man stranded on a lonely road, in the thought of an adjustment counter twenty miles away.

For the guarantee never will be penned that can be fitted to a rim, and ridden upon.

And that, it seems to us, is the final answer in this guarantee matter; not what can be looked for on paper, but what can be looked for underwheel.

And Goodyear Says:

We are just as anxious as you are to set the public right on this question of tire guarantees. We know it has been a very confusing one to the public at large. We are heartly in sympathy with the movement you have started.

WHAT THE WORLD MUDDLE MEANS TO YOU

VERYTHING to-day seems upset, boiling, seething, flowing this way and that, in turmoil and confusion, with nothingness on the heels of nothing, and a world full of people ready to begin again the strife that has just ended.

It is a time for leaders, because the people of the world are ripe for leadership. The world war threw every man out of his normal channel and he is having a hard job getting back. It is as though a big fire had driven two hundred people from a tenement house and they were milling about in the street. After the fire is out they still mill around and are a long time getting back into the house. They are ripe and ready, in the semi-confusion, to act on the word of any upstart leader and rush off in mob fashion.

That is what is happening in the world to-day. Upstart agitators find it an excellent opportunity for becoming leaders—and they have little difficulty getting a following. Having studied their "theories" for years, they are well prepared to "sell the world" on their ideas, and the world, NOT being familiar with these ideas and the "holes in them," is not prepared to contend against the ideas of these agitators.

OME of the unrest is "sound." Much of it is artificial. Some working people are justified in asking that their wages be brought to a proper economic level. Others are the victims of agitators. And the sound and the unsound unrest makes the confusion great.

But all of it will in time pass away. The world will settle down. We shall attain a "normal" condition; but what is normal then will be what seems abnormal to-day.

As to labor, it will go to an extreme, without doubt. The pendulum has swung from the days when women and children worked on their hands and knees in coal mines to to-day, when unions control industries. The pendulum, if let to swing in a normal fashion, will swing to an extreme in some cases, where labor will try to control or operate industries—and it will fail. Then the pendulum will swing back to an aver-

age and we shall have our good old American republic, with representative government and the people taking a real interest in it. The time when the reaction comes will depend on the rapidity with which labor runs to its extreme.

The reaction is fairly sure to come, because it is the history of extremist movements that their advocates, once in power, become more intolerant than those whom they recently opposed.

OUT of all this turmoil and mess will come times of calm. In that day men of intelligence and "to-day's foresight" will lead in every field, in government, in business, and in the automotive business. The men who get ready NOW will be the leaders THEN.

In that day the agitators and superficialists will have no standing. They will be seen for what they are—seekers after publicity and a soft living by exploiting those who have a hard living. Limelight will come only to merit.

The man who prepares NOW will lead THEN.

The automotive business man who takes advantage of these days to get ready for the future will be the dealer who can go to the banker and borrow the most money on the smallest liquid assets.

The garageman who gets set now will have the business then. People will recognize him as a leader, because he will have acquired the qualities of leadership. He not only will be a leader but will look like a leader.

THE dealer who gets set now will be the success then. He will command the pick of car agencies. He will command the pick of customers, because he will have an establishment that looks like what he wants it to be—and his appearance will reflect his methods.

To be a leading citizen and business man in this future New Business there are certain definite things each dealer, garageman, repairman, jobber, salesman, manager, stenographer, mechanic and office boy must do. On the next page read

10 THINGS YOU CAN DO.

AND

10 THINGS YOU CAN DO

Before or after you read this page read the opposite page

Keep your head. Read the newspapers but don't pay too much attention to what you read in them. In any situation some newspapers feel that they must have a fresh story every day, wherefore, features are sometimes forced. Weigh all information carefully. Draw no conclusions until you know you have facts. Don't take the word of a "political" newspaper as the final facts on any national subject. Read several papers.

2 Keep right on working. Let the world boil if it wants to. You keep right on with your work. When the boiling subsides you will be miles ahead of those who have been part of the embroglio. Now that the fire is out don't stand around and watch the ruins.

Sacrifice a little if necessary—and get it back later. Perhaps you are working for a wage and perhaps some other shop may pay a couple of cents more than you get. Maybe some coworker gets a few cents more. Keep your feet on the ground. Go ahead, work and study and get ready for the "merit promotions" that seldom come to those who spend all their time yelling about "their rights." Maybe your business, if you are a dealer, isn't quite what you'd like. Maybe your dealer contract isn't all you might desire. Keep working, sacrifice a little now, and get ready for a real adjustment in the future.

Talk sense to your fellows. Preach a bit of the gospel of common sense to all with whom you come in contact. Tell them some of the things on these two pages. Tell them to keep their feet on the ground, keep working and take a little more intelligent interest in Government and a few other things and waste less conversation in useless ways.

5 Believe in individualism. Offset wherever possible the talk in favor of collectivism, socialism and such things. Certain reforms are all right and those that are good will be worked out, but socialism, with less chance for each individual to become what he can if he works for advancement, would not be relished by the socialists themselves if they got it.

6 Be open minded. Get all the facts in a situation and then draw the logical conclusion. When you see that the principle of labor union bargaining and a basic eight-hour day has been almost generally accepted, be open minded enough to accept the situation. Likewise, be open minded on other things, many of which may not be in accord with old methods and ideals. Advise others to do likewise. Some of our worst troubles are due to the hard-headedness of men who can't read the signs of the times.

Study the times. Keep yourself posted on important general matters. Learn what is going on in Government and what the men whose salaries you are paying at Washington are doing in the interest of the nation. Learn the facts on prices, profiteering, legislation, politics and other important subjects.

Read good magazines and books. In addition to your newspapers read such magazines as the Literary Digest and the Outlook, and the Wall Street Journal and Journal of Commerce. Read the books of thinkers. Read less fiction and bunk. Study your trade paper and look over the trade papers of those with whom you do business. Pass up no opportunity to post yourself with facts.

9 Take part in Government. When you vote know what you are voting for. Know actually what has and has not been done by the men or party which seeks your vote. Vote for good government and not for a party. Help get business men in official positions. Help rid the country of its parasitical politicians whose main purpose is to keep themselves and their party in power and not to give the people good government. We need more business and less politics. One thing we need is a national budget. Write more letters to your representatives. Make yourself a factor in your Government.

10 Do new and better things. Especially in business, do things you haven't done before but which you ought to do. Make your business better. Make yourself better. Study yourself and your business to learn how to make them better. Be more aggressive in many ways. Determine that you are going to amount to something more than you have in the past, no matter what you may have been in the past. Get ready NOW to lead THEN.

YOUR WINDOWS Do They Hit the Bull's-Eye?

Get out in front of your salesroom and take a good, long look at it—If your display scheme lacks trade-pulling qualities, inject some real ideas into it and cash in on the results.

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ETTER business to-day necessitates the utilization of every available sales getter and trade puller. The dealer who would have his cash in the bank mount higher and higher is the one who overlooks no corner or turn of the road that will mean bigger sales and higher profits. This is an axiom of trade, whether it be in the automobile or any other line.

Consequently, let's get set on our window displays and work out a system for their use that will serve to bring in business and create higher sales. Let us use them to their fullest possibilities and let us make them bring us new customers and increase the purchases of the customers we already have.

Why not do these things:

- 1. Change the display often.
- 2. Use them to show off seasonable goods, keeping abreast with the times and developments of the trade.
- 3. Plan displays so full of ginger that new customers will be brought in.
- 4. And keep the windows clean, attractive and neat.

The automobile dealer and garage owner does not run a junk shop, although the windows of many are so covered with dust and dirt, so infrequently changed and so often displaying nothing but a few pieces of poorselling equipment, that the passer-by often gets that impression. Such dealers—and they are legion—have overlooked a possibility that should be employed in the game of building up the cash balance.

The window is the first thing that a customer sees about a shop when he enters it. If it is clean and attractively gotten up, the first impression is that the shop is a wide-awake and up-to-the-minute one where fair dealing and good service may be expected. First impressions are the gateways that open the roads to confidence. And confidence is the beginning of the

trade that keeps on day after day.

Some dealers believe that they are too busy to bother about changing their window displays and that new business seldom results from a showing behind a plate-glass front. Some dealers have windows so dirty that one can scarcely see through them, while others have the glass so littered with signs and posters that the goods within are practically cut off from view.

Get out in front of your shop some afternoon—the sooner the better—AND TAKE AN ANALYTICAL VIEW OF IT. Look at it from across the street and see how it stacks up in regard to paint, cleanliness and general appearance. Stand there ten or fifteen minutes and think over the impression you get of it.

Then get squarely in front of the display window and see how it looks from that point of observation. Think some more. Go inside, take a seat somewhere in a quiet corner where you won't be bothered and decide what you are going to do about it.

Most likely, you will decide some improvements are necessary, paint, perhaps a new glass, a few minutes use of the mop and dust rag or a complete change of the display. Think it over with the idea of making that first impression of the customer a good one.

Force the Purchase

The window is a medium of free advertising for your business, even more important than the newspaper space you buy as often as your appropriation will permit. There is a garage and automotive equipment shop in a certain city in the South that runs a large advertisement in the local newspaper at least twice each week. But the window display has not been changed for three months or more. And it is a poor display in the

Motor World is anxious to pass along to its readers any good window display ideas that may help to increase business—either of accessories, cars, trucks or tractors.

WHAT HAVE YOU DONE ALONG THIS LINE? Read the article herewith and then write this magazine if you have had any displays that hit the bull's-eye.

Some dealers and garagemen think they lack the time to worry about their windows.

DO YOU?

first place, so hidden under dirty glass that it could convey little to the pedestrian.

Many dealers believe, or appear to, that sales of automotive equipment come to them without their influence doing anything to increase it-in other words, they think the customer buys only what he has decided beforehand that he wants. In some lines that is so. The hardware dealer doesn't expect to create a demand for nails or bolts because those articles are staples for which the demands are fixed. But he does go after business on safety razors or refrigerators. Many customers do not know they need such articles until they are shown

Dealer Must Stimulate Demand

It is similar in the automobile industry. The customer may know that he needs a new set of tires, for instance, and come in to purchase them. But he hadn't thought previously that he could use, say, a new motor robe or a trouble lamp or a better carbureter or a set of chains. The dealer must bring them to his attention and force the sales—the tires, in the first instance, will sell themselves, although you can influence the make that will be bought, but the robe or the lamp MUST BE SOLD..

The window display should be an important factor in gaining the interest of the customer. Get up the display of something attractive that your customers do not buy because of known needs. Show off something that they need but have not thought of and would not unless their attention was directed to it.

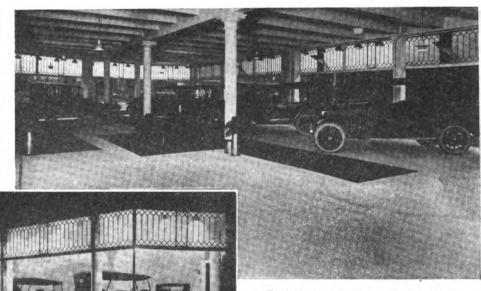
The jobber and manufacturer will help in most cases if you have the foresight and the energy to take advantage of their aid. They have gotten up many displays in the past, have prepared window signs and know how



the space may best be utilized. Call on them for help and, if they do not come across, there is a point against continuing business with them.

Get up seasonable displays. Do not feature motor robes in the summertime and linen seat covers in the winter. Show off your goods at the time they can be used.

If you have decided to feature some trademark article, get up your displays in conjunction with the national



Typical car displays on Broadway, New York's automobile row. The upper view is in the Studebaker salesroom, the lower is a night picture of the show windows at the same establishment

campaigns of the makers. Use the same arguments in your showing that the manufacturer does in his newspaper or magazine advertising. Make one help out the other, the window largely to tell your customers that you are stocked on the line being advertised.

Use the window for telling the inhabitants of your city that you do repair work and have a service station. Let one of your tire men sit in there some day repairing tubes or tires. Such a display can always be counted upon to draw attention. You can put up attractive cards and arrange the display to drive home the idea that you are in the tire business to give good service at the proper prices. Passersby thus will have it fixed in their minds that yours is the place to go for such repairs.

That is an idea that can be utilized in many ways. There are numerous shop activities that can so be shown in the window and, with each showing, your business becomes better known.

Recently a dealer in a Mississippi River city had an unusual opportunity for such a display. The navy had sent several submarine chasers and a surrendered German U-boat up the river in a recruiting drive. While docked in that particular city, a piece of machinery on the submarine became broken, the part requiring welding. It was an easy job for the welding department of the shop and was quickly completed to the satisfaction of the ship's officers. The dealer seized the unusual incident for a clever stroke of advertising and drew increased business as a result.

That case is isolated and unusual,

of course, but it illustrates the possibility of timely use of various happenings. GET UP DISPLAYS THAT HIT THE BULL'S-EYE OF INTEREST, TAKING ADVANTAGE OF WHATEVER TIMELY INCIDENTS MAY COME UP. Have a special window for the week of your annual county fair, get up another one for the fall, and a different one in connection with this or that local occurrence.

Make your window pay dividends. It is a part of your shop building, for which you must pay rent. Make it return some profit and do not let it stand idle, drawing dirt and collecting old goods. A few tires, a few chains, a few springs, a spark plug box or two, thrown promiscuously and without reason behind the glass do not make a display. The only good they will do is to gather dust and make your customers think your shop is slow and behind-the-times.

Let your windows speak the CHAR-ACTER of your shop, CLEAN-CUT AND ABREAST OF THE TIMES.

Moves from Boston to New York in a Night

NEW YORK, Aug. 8—The general offices of the X Laboratories were moved from Boston to New York over night. At 2.30 o'clock July 28 a fleet of motor trucks backed up to the offices of X in Boston and in a short time thereafter everything from the safe to the office cat and L. J. Stern's canary bird were en route to New York.

On the following morning, Tuesday, July 29, the X Laboratories general offices were doing business at 25 West 45th Street. During the night the office employees came down from Boston by train.

This office force includes sixty people. On Tuesday morning, July 29, promptly at 9 o'clock everybody was at his or her desk and the whole institution was functioning as usual.

Three new products are to be added to "X" line. One of them will soon be announced. It is the Rearometer. "This is a distance indicator," the company states, "built on the principle of a rear view mirror. It measures accurately the distance any object is to the rear of a car and how near an object is to the side. The other products are now being tested in our laboratories and in due time will be announced."

Only the general offices of the X Laboratories have been moved to New York. The factory in Boston is to be retained. An additional factory will be equipped in New York City.

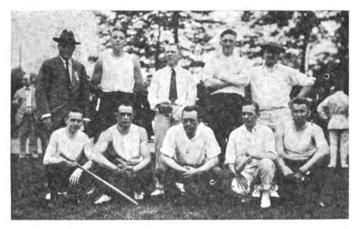
Service Personnel Changes

WABASH, IND., Aug. 6—R. C. Spinning, formerly assistant manager of sales and advertising for the Service Motor Truck Co., has been made advertising manager. Frank L. H. Johnson will be manager of sales promotion. Mr. Johnson was formerly with the Stutz and Simplex organizations, and was with the White Co. until his enlistment in the Marine Corps, where he served as lieutenant. E. T. Herbig, who has been both sales and advertising manager, will assume the duties of sales director.

Ohio Blower Plant Started

CLEVELAND, Aug. 11—Contracts have been let and work started on a \$200,000 addition to the Ohio Blower Co.'s plant. The building will be L-shaped, 110 x 60 x 80 x 160 ft., four stories high, of reinforced concrete. It is expected to be completed within 90 days and will be used for the manufacture of automobile bodies.

New York Packard Salesmen Forgot It All For a Day





There was a baseball game in which the truck salesmen (left) cleaned up the passenger car outfit (right)



5 Things Your Boss Looks At In You

1—Your organization spirit

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- 2-Your get-results habit
- 3—Your ability to originate
- 4—Your accuracy
- 5—Your atmosphere

PROFESSION FOR HEIR COMPANY CONTRACTOR OF THE PROFESSION OF THE PR

By RAY W. SHERMAN

AST—but by no means the least," Reilly began, "is the atmosphere that surrounds the man."

And Georgie Roper, youngest of Reilly's salesmen, dusted an imaginary speck of Callawassa's atmosphere off his knee, as he prepared to finish the job he had begun five days before. At the suggestion of Tommy Trumbull, Reilly's sales manager, Georgie had asked the boss for the five things the boss looks at in men. And in one-two-three order—one a day—Georgie had gotten what he went after. To-day's was the fifth—and last.

Reilly hesitated a moment. "Atmosphere?" inquired Roper.

"Yes," said Reilly. "Atmosphere-made up of personal appearance, haircuts, manicuring, collars, neckties, clothes, shoc-shines, voice, actions, disposition and every other little old thing which has to do with the impression a man makes on those with whom he comes in contact."

"That has to do with efficiency—and results?" asked Roper.

"In my estimation, decidedly so!"

Whereat Roper said nothing but waited for the next verse, which was as follows:

"Some folks contend that clothes don't make the man but I'll take a ninety-percenter who looks like a hundred per cent any day in preference to a hundred-percenter who looks like seventy-five per cent. These birds who don't look like real ones get on my nerves. I can't stand them. Maybe some people don't care about the looks of their organization—but I DO! My organization is something of which I am proud, and I want to have reason to be proud.

"Whenever I send a man out to call on a prospect that man carries the entire good-will and reputation of the Reilly organization in his pocket. He can do what he wills with it—and I want him to bring it back intact. If the man I send out looks like a last year's bird's nest, part of the good-will is lost the minute the man

goes in the prospect's door. The man may regain it later, but why should it be necessary for him to do that? Why not fix things at the beginning so that there will be no regaining necessary? Anything that creates sales resistance is bad stuff!

"The care of clothes, hair-cuts, shoeshines and all these exterior marks give a man a certain rating the minute he comes into view. So why not fix things so the best possible rating can be secured at the very start?

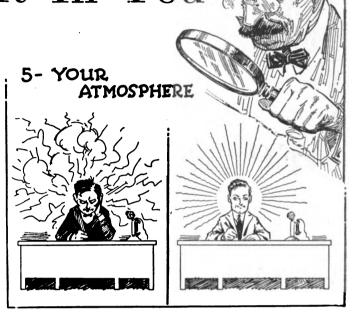
"Then, a man's way of speaking may have a lot to do with his progress. He may be so energetic and snappy that he seems brusk and over-aggressive. This hurts. It sets the prospect against him before he gets started. The prospect at once, automatically, erects a barrier which the salesman must by his subsequent actions and conversation break down.

"And maybe the man may unintentionally appear pessimistic. Maybe he doesn't smile. Maybe he has a severe expression of countenance. Some men are this way when not talking, yet smile when talking. If a man has this raincloud expression on his face he has made his way harder before he begins. There's nothing like cheerfulness. A man who wasn't born smiling should read books or go to theaters or lectures or do something to get a different look on his face. There probably is a wonderful field somewhere or other for a man who has a severe look. He might be an undertaker, or a bill collector.

"You know," Reilly reminisced, "we almost lost an order once because the salesman wore a red necktie."

"You did! A red necktie?"

"Just that—and nothing more—a red



necktie. We had a salesman that I thought was pretty good. He was fairly snappy and all that and dressed well enough—and, as it turned out, too well. He had the erroneous idea that this business is a game and he proceeded to carry out the idea by wearing a race-track necktie.

"We sent him down one day to call on two prospects on the South Side. One was a doctor and the other was a minister. He landed the doctor all right, regardless of the necktie. But the minister went up like a wild bull.

"We didn't find it out until later—after the salesman had canned the red tie. The minister thought at first the salesman wanted spiritual advice or something and gave him a ready audience. But when the salesman disclosed his mission, the clergyman read him a lecture on the sins of the world and the evils of flashy dress and a lot of things that I don't believe are in the book at all. And he finally invited the salesman to depart forthwith and never to return."

Roper laughed.

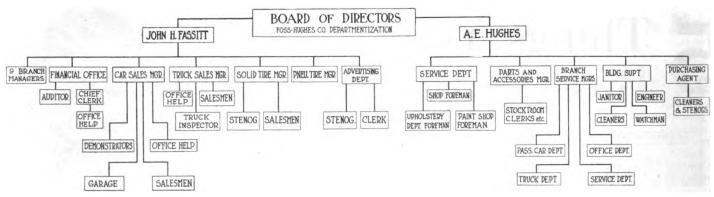
"But the joke is," Reilly added, "that the salesman put on the most funereal suit he had, went back two days later, thanked the minister for having given him such good advice and got the order.

"And the salesman really meant what he said, for he hasn't worn red neckties since. Neither has he dressed like a race-track man. He is about the best little business man I know, for he tumbled at once to the situation."

"Who-"

"Tommy Trumbull," said Reilly, whereat Roper decided he had learned one more reason why the salesman of a few short years before was practically general manager for C. J. Reilly, Inc.





The plan controlling the flourishing business of the Foss-Hughes Co., Philadelphia

DEPARTMENTIZATION BUILDS BIG BUSINESS

Philadelphia Company Carries System Into Every Section of Its Enterprise and Attains Unusual Results in Disposing of New and Used Cars

PROBABLY few dealers in both passenger cars and motor trucks have their business as closely departmentized as the Foss-Hughes Co., distributer of Pierce-Arrow cars, Market and Twenty-first streets, Philadelphia. From this office, which is headquarters for the territory, are controlled nine branches, each with its resident manager responsible to John H. Fassitt, of the Philadelphia office, and, with its service department manager, responsible to A. E. Hughes, also of the Philadelphia office.

Hughes and Fassitt are responsible to the board of directors of the Foss-Hughes Co. In 1907, Hughes, deeming the service department to be the vital part of the business upon which sales would be largely dependent, assumed supervision of that end. This idea of service being the bulwark of the business runs like a theme through the organization. The branches are as follows: Reading, Pa.; Baltimore, Md.; Wilmington, Del.; Scranton, Pa.; Washington, D. C.; Wilkes-Barre, Pa.; Providence, R. I., and Fall River, Mass.

The business is departmentized further, as follows:

Under Fassitt's supervision come the finance office, with auditor, chief clerk and office assistants; the car sales manager, with salesmen, demonstrators, garage force and office help; the truck sales manager, with salesmen, truck in-

spectors and office help; the solid tire manager, with salesmen and stenographer; the pneumatic tire manager and the advertising departments, with stenographers and clerks.

Under Hughes' control are the service department, with shop foreman; upholstery department, with foreman; and paint shop, with foreman; the parts and accessories manager, with stockroom clerks; the purchasing agent, with clerks and stenographers and the building superintendent in charge of engineer, janitor, watchman and cleaners.

Real Managers

It might be added that the men placed in charge of the Foss-Hughes Co. departments as managers are managers in every sense of the word and that, while they have certain fundamental instructions from the executive offices, they are held individually responsible, as if the business under their charge were their own In this way no manager suffers loss of self-respect through feeling that he is merely a dummy, or only a mouthpiece for orders from "higher up." Only a good man can hold the position and he is able to maintain authority through the Foss-Hughes method of making him an actual, not a nominal manager.

The nine branch offices, as already mentioned, are responsible for the sales department to Fassitt, while their service department managers are answerable to Hughes. Each branch has its passenger car and its truck department, a service department and an office force. There is a branch service station manager, with headquarters in Philadelphia, whose duty

it is to travel constantly between the factory and Philadelphia, and Philadelphia and the nine branches. This official keeps in touch with all mechanical changes on cars and disseminates this information among the various branches. He promotes repairshop efficiency and oversees all cars that seem to be giving particular trouble for any reason whatever.

The plan outlined above, when analyzed, does not show a department for the sale of used cars. Most large companies maintain an entirely separate department, with a special force of salesmen, for handling this part of the business, but not so with the Foss-Hughes Co., although a great many used cars are disposed of by the firm.

The reason for this apparent lack is that the company concentrates upon the sale of Pierce-Arrow cars and it handles only used cars of that make-in other words, its salesmen work at all times only upon the problem of selling one make of cars, whether they be new or used. The company believes that the two are sold on the same basis of quality, durability, and long life. Consequently, it is considered a palpable loss of sales effort to have a group of salesmen devoted to selling new cars and another to disposing of used cars, when the selling arguments are parallel. The company has taken such pains with its used cars that it feels it has a reputation to live up to in them as it has in the new cars, and so the sales problem of the one is practically the same as with the other.

(Continued on page 19)

From Johannesburg

MERICAN travelers who think a few months' absence from the home town is a long time aren't quite so badly off as some of the travelers in foreign countries. At a recent jobbers' convention was an English traveler who had been away from home three years, and at present there is in America William Campbell, who left his home in Johannesburg, South Africa, a year ago the first of August.

Campbell is one of the largest automotive distributers in the southern hemisphere. He handles the Hudson and Essex and many automotive lines and is seeking more distributing connections. He is about to establish a chain of 8 major and 20 sub-stations for battery service, this being, he states, the first thing of its kind in his country. He will send a man to America to learn the battery business.

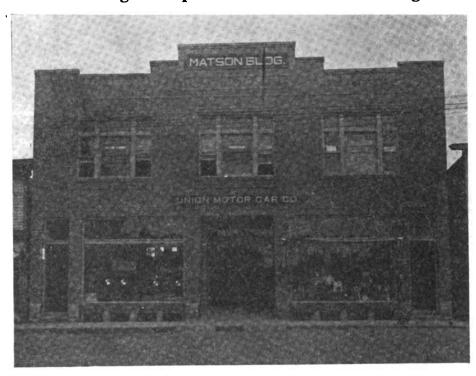
With his two sons he has built his business in a very few years, and is active in the life of South Africa. He is deeply interested in schools and when he returns may urge the government to aid in establishing automotive schools, such as are privately operated in this country. The trade, he states, embraces from 700 to 1000 places of business and something like 5000 people.

When he looked at pictures of the Wichita demonstration of tractors he said the scenes would easily pass for South African if the men wore felt hats instead of straws. The great sea of straw hats that is visible these days from any New York office building was, he said, an unusual sight to him.



WILLIAM CAMPBELL
from Johannesburg, South Africa. He
is visiting America on business and, as
do many visitors from foreign countries, he dropped in on Motor World
for information

A Shining Example of the Small Town Garage



The new building of the Union Motor Car Co., Ada, Mich, completed this spring, has a first floor devoted to salesroom and storage, basement used for battery work and second story for repair work. It is the largest and most modern garage in Norman County and cost, with ground, \$20,000. It is owned by Peter Matson, sales owner of the Union company. Ada's population is about 3000

Much of his time on this trip of a year has been spent in England. He was here from October to January, went back to England, and has been here the second time for two months. He plans to return to England, and thence home, this month.

Departmentization Builds Big Business

(Continued from page 18)

This unity of selling—since the cars are identical—makes the salesmen as keen for disposing of used cars, it is declared, as of the new ones. Each salesman, too, has a wider range of sales than under the usual method.

The company has divided its used cars into five classes, selling them with certain guarantees or representations, differing with each class. The classes are:

Class A—Completely rebuilt and fully guaranteed.

Class B—Not sufficient mileage since new to warrant complete rebuilding. All necessary repairs hade and car put in first class condition. Fully guaranteed.

Class C—Car overhauled and repaired so capable of considerable service before needing rebuilding. Sold with 90-day guarantee against broken parts due to defects.

Class D—Car has had partial overhauling and in good condition. No guarantee.

Class E-Sold as received. No guarantee.

The sale of these cars is further aided by an arrangement by which each salesman in each of the nine branches has an opportunity to sell used cars taken in at any or all of these places, thus giving the widest possible sales range. Such a plan can be effective only with systematization and departmentization carried to a high degree, as this company attempts. But this is made possible by close co-operation, through the proper departments, between the various salesrooms of the big company. Each salesman in each salesroom must be kept in close touch with the used cars of each of the other branches so that he may have the entire used cars stock upon which to draw. This is done by a clever interchange, directed from the Philadelphia office, of daily car reports. with each salesman being furnished with complete descriptions of each of the cars that are kept in loose-leaf memorandum books furnished by the company for that purpose.

Big Accessory Shipment At Dallas

DALLAS, TEX., Aug. 9—A full carload of automotive accessories and garage equipment has just been shipped from here by the Spencer-Carroll Co., jobbers, to the firm of Morgan & Robinson of Ranger, Tex. It was believed to be the first single car order of motor equipment to one concern to be shipped from this growing center. It consisted of lathe, electric motor, drills, burningin stands, complete shop equipment and a full line of accessories.



Repairshop Shortcuts

From Motor World Mechanics

No. 2242—FITTING THE MAXWELL CYLINDER HEAD

As the two rear bolts holding the cylinder head of the Maxwell 25 must be placed in their holes before the head is in position partly under the floor-board, they are apt to cause trouble by slipping through and catching in the gasket. A small rubber band stretched from one bolt to the other will hold them sufficiently to prevent slipping and will leave both the operator's hands free.—Harry Ympa, Los Angeles, Cal.

No. 2243—COMBINATION MARKER AND VALVE WRENCH

A handy, simple equipment for marking holes in tubes when examining them preparatory to repairing is an indelible pencil having a valve-cap screwed on its non-working end. The cap acts as a valve wrench.—J. A. Russell, Tracy, Cal.

No. 2244-A HANDY DIE HOLDER

For making a die holder for threading spring clips in cases where they have become damaged, secure a piece of pipe 6 in. long and large enough in diameter to hold the die to be used. Drill two holes % in. from bottom and tap them for %-in. short cap-screws. These screws should be pointed slightly. Run a piece of small diameter through the other end to form a handle.—H. R. Miller, Mount Dora, Fla.

No. 2245—FOR THE CAR WASH-RACK

Cut a soap barrel in half and fit an old wringer to the lower half, as shown. This will wring chamois sufficiently to insure that the car upon which it is used is thoroughly dried before being turned over to the owner. It has been found that the use of this equipment has eliminated all complaints on this score.—P. G. Wing, Elmira, N. Y.

No. 2246—TO PREVENT DAMAGE TO HYDROMETERS

Hydrometers are delicate instruments and frequently become damaged. To preserve them from injury take two strips of wood about 3 ft. in length and fix them firmly in upright positions, one at each end of the work-bench. Between the tops of these uprights run a ½-in. steel cable on which a small pulley or eye-bolt has been slipped. To this

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

- 1—Describe the shortcut briefly but clearly, in few words.
- 2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.
- 3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

pulley or eye-bolt attach a piece of rubber cut from an inner tube and measuring 1/2 in. by 15 in. long. To the other end of this is attached a piece of wood forming a cradle for the hydrometer, as shown. The use of this device permits of the hydrometer being moved to any part of the bench. When not in use it is drawn clear of the battery by the tension on the rubber strip.—J. W. Shelton, Pittsburgh, Pa.

No. 2247—AN EFFECTIVE CLEANING DEVICE

A handy outfit for cleaning the dirt and carbon from cylinder-head screwholes, etc., is made by taking an old tire valve and sawing off where the core seat ends. Then cut an old oil can spout at the point where it will fit the valve and solder together. At the same time solder a washer to the joint to form a fingergrip. Compressed air to operate the cleaner is furnished either by a tire pump or by an air station, where the latter is available.—P. R. Ketchum, Marion, La.

No. 2248—MAKING LOOSE SCREWS FIT TIGHTLY IN THREADED HOLES

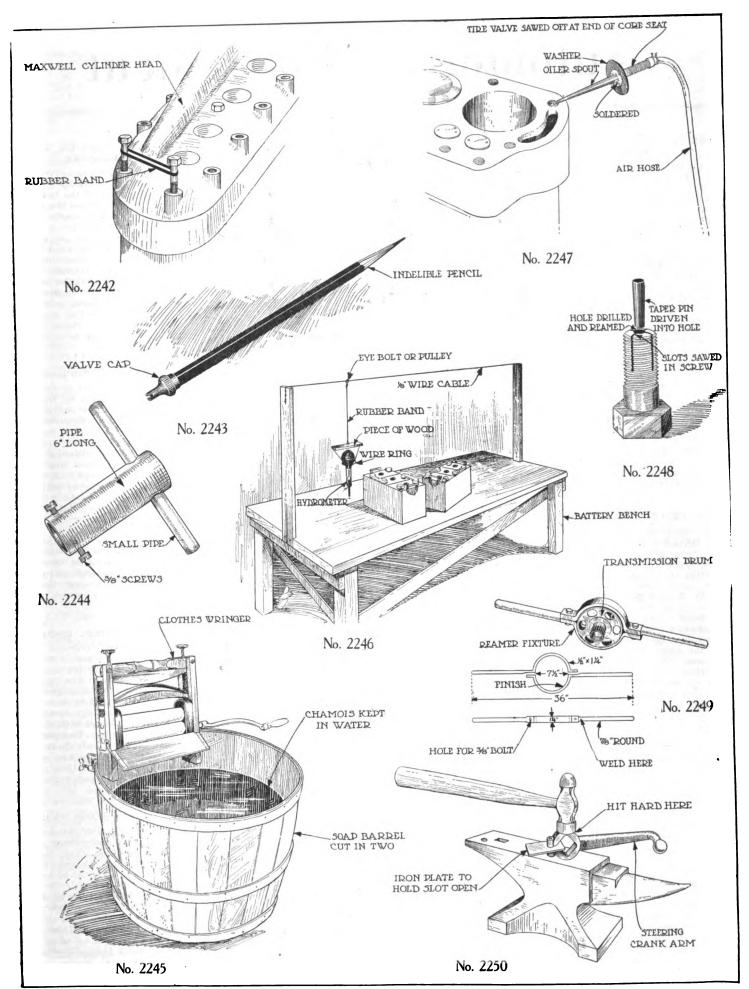
Screws and bolts of all kinds of over ¼ in. diameter which fit loosely in threaded holes can be made a good, tight fit by sawing two slots across the diameter at right angles to each other after a central hole has been drilled and reamed to take a taper pin. The size of the screw determines the size of the pin and the width of the slots. method can also be used in a blind threaded hole by gaging the amount that the taper pin protrudes, so that as the screw or bolt is screwed down tighter the taper pin is forced into the hole, thereby causing the screw or bolt to expand proportionately. - J. McIntyre, Bridgeport, Conn.

No. 2249—A FORD TRANSMISSION REAMER FIXTURE

This equipment provides for the transmission drums being clamped in the fixture, the reamer being held in a vise. The inside of the fixture should have a turned finish and the handles should be welded on afterwards. Dimensions are given on drawing.—B. Sprague, Huntington, W. Va.

No. 2250—TO TIGHTEN STEERING CRANK ARM

If the bolt will not take up the wear in the square hole, insert an iron plate to keep the slot open and strike the arm sharply with a hammer right above the hole. This will be found more satisfactory than using shims. The method has been used successfully when others have failed.—M. Redlinger, Freeport, Ill.



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Automotive Equipment

REX DE LUXE MICA SPARK PLUG

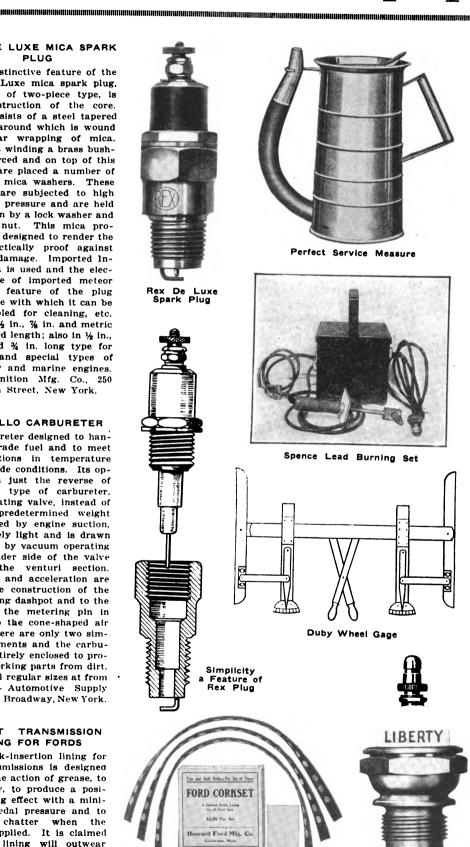
The distinctive feature of the Rex De Luxe mica spark plug. which is of two-piece type, is the construction of the core. This consists of a steel tapered spindle, around which is wound a circular wrapping of mica. Over this winding a brass bushing is forced and on top of this bushing are placed a number of layers of mica washers. These washers are subjected to high hydraulic pressure and are held in position by a lock washer and hexagon nut. This mica protection is designed to render the plug practically proof against wear or damage. Imported Indian mica is used and the electrodes are of imported meteor wire. A feature of the plug is the ease with which it can be disassembled for cleaning, etc. Made in 1/2 in., 1/4 in. and metric in standard length; also in ½ in., % in. and % in. long type for tractors and special types of stationary and marine engines. -Rex Ignition Mfg. Co., 250 West 54th Street, New York.

CANTELLO CARBURETER

A carbureter designed to handle low-grade fuel and to meet all variations in temperature and altitude conditions. Its operation is just the reverse of the usual type of carbureter, as the floating valve, instead of being a predetermined weight to be lifted by engine suction. is extremely light and is drawn downward by vacuum operating on the under side of the valve through the venturi section. Flexibility and acceleration are due to the construction of the self-cleaning dashpot and to the design of the metering pin in relation to the cone-shaped air valve. There are only two simple adjustments and the carbureter is entirely enclosed to protect its working parts from dirt. Made in all regular sizes at from \$20 up. - Automotive Supply Corp., 1776 Broadway, New York.

CORKSET TRANSMISSION LINING FOR FORDS

This cork-insertion lining for Ford transmissions is designed to resist the action of grease, to grip evenly, to produce a positive braking effect with a minimum of pedal pressure and to eliminate chatter when the brake is applied. It is claimed that this lining will outwear several sets of ordinary type. Price \$2.50 per set. — Howard Ford Mfg. Co., Coldwater, Mich.



Corkset Transmission Lining

PERFECT SERVICE LIQUID MEASURE

A can designed to deliver oil in any desired quantity without waste. A valve in the bottom of the measure controls the flow of oil through the nozzle. valve is operated by a thumb lever located just above the handle and the can measures as it serves. It is intended for garage or service stations. It is, in effect, a combination of container, strainer and flexible funnel. Made in 1/2-gal. and 1-gal. sizes, either tinned or coppered. Price from \$3 up.—Bailey-Drake Co., 1120 Michigan Avenue, Chi-

SPENCE LEAD BURNING SET

This electrical set is designed to take the place of the gas flame lead burning outfits used for assembling loose plates and straps and for burning on connectors. It operates similarly to an electric soldering iron, taking current from any light socket on a 110-volt alternating circuit. Any degree of heat may be obtained, and the varying of pressure at the point of contact gives positive control. Current consumption is about equal to that of a 300-watt lamp, and the outfit may be used successfully by an unskilled operator. Price, including spare parts and glasses, \$40. — Spence Electric Co., 136 Liberty Street, New York City.

DUBY WHEEL GAGE

This is an equipment designed to positively test the alignment of either front or rear wheels While in use the legs and castors hold the gage at the correct height and by spreading the handles the gage heads are brought in contact with the insides of the tires. The pointers register on the dials, indicating whether the wheels are out of alignment. Price \$12.—J. F. Duby, 2281 Dorchester Avenue. Dorchester, Mass.

LIBERTY SPARK PLUG

This is a stone-insulated spark plug, which is easily taken apart and reassembled. The shell is made of brass, the electrodes are made of a special nickel alloy, and the center electrode is tapered below the sparking point so as to induce any oil to drop off readily. The ground electrode is double and therefore is not easily bent out of adjustment. Price \$1.50.-Liberty Ignition Co., 107 Massachusetts Avenue, Boston, Mass.



Liberty Spark Plug

BOYCE MOTO-METER FOR TRUCKS AND TRACTORS

This new model Moto-Meter has been designed to meet the severe service conditions incurred in truck and tractor work. The diameter of the thermometer tube is 1/2 in., making breakage practically impossible, and the frame of the instrument is very substantial. The casing is nickel plated and the tube has a broad red column of indicating liquid which may be readily seen through the dust frequently encountered in operating trucks and tractors.-Moto-Meter Co., Long Island City, N. Y.

A NEW BETHLEHEM SPARK PLUG

This is a %-in. long plug especially designed for use in Dodge, Chevrolet, Buick and Willys-Knight engines. It is furnished with a combination terminal, suitable for use on any one of these. The plug is of standard construction and is listed at 75 cents.—The Silvex Co., South Bethlehem, Pa.

WIZARD UNDERCUTTER

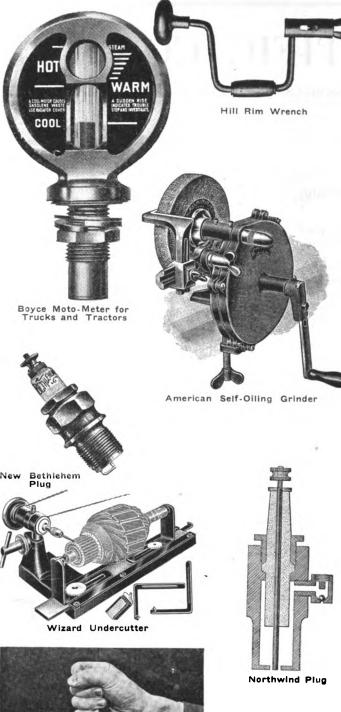
This tool is designed to facilitate the undercutting of the insulation between the copper segments when a commutator is turned down. It is strongly made and runs on ball bearings. Adjustments are so arranged that the tool will fit any size of automobile armature. The instrument is driven by a 1/8 to 1/6 hp. motor and is adjusted to give 7,000 r.p.m. to the cutting burr. Operation is a simple matter and can be done by inexperienced help. Price, including two extra brackets and 6 burrs in two sizes, is \$45. Extra burrs cost 15 cents each.-Paul G. Niehoff & Co., 232-242 East Ohio Street Chicago.

SHURO CELL TESTER

This device is designed for making tests accurately and quickly on storage batteries. It can be held in any position while making a test, being neither positive nor negative. It is furnished with a double-reading meter and light and is operated by simply placing the prods on the posts of each cell. Exact conditions can be immediately determined by looking at the light or the meter while making a discharge test. The instrument registers both the amount of current and the cell voltage at the same time by a single indicator rotating on a double scale.-H. B. Shontz Co., 157 West 54th Street, New York.

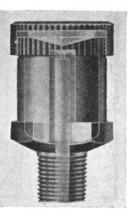
HILL INDESTRUCTIBLE DE-MOUNTABLE RIM WRENCH

This wrench embodies a decided improvement in construction over its predecessor. It is now made entirely of steel. The brace handle and knob are heavy steel stampings and the





Sauro Cell Tester



Blooming Automatic Oil Cup

brace itself consists of a substantial steel rod. The tube which holds the reinforced, casehardened, drop-forged jaws is seamless steel. Handle and tube are finished in black enamel, the brace itself being nickel plated. This wrench takes automatically, without adjustment, every size of nut used on every make of demountable rim. — Hill Pump Valve Co., Chicago.

AMERICAN SELF-OILING GRINDER

This is a fast-cutting grinder designed for garages, repair shops, etc. The oil-tight gear case encloses the machine cut gear and pinion. Bronze bearings insure smooth, even transmission and long wear, and the mechanism operates in a continuous oil bath. Comes equipped with tool rest and 8 x 11/4 in. alundum grinding wheel. Price, without attachments, \$20; a twist drill attachment costs \$10, a chisel attachment is \$3, and the price of a redresser is \$2. It is an all-around outfit for keeping tools in good condition. -American Grinder Mfg. Co., Milwaukee, Wis.

NORTHWIND VENTILATED SPARK PLUG

This spark plug is so constructed that it is claimed to be automatically protected from cracking porcelain due to excessive heat or other causes. On the suction stroke the outside air pressure lifts the little bronze ball and admits a stream of cool air to the inner chamber and past the central electrode. During the rest of the cycle the ball lies snugly in its seat and prevents leakage. No adjustments are necessary. This stream of air also serves to prevent the terminals becoming fouled by oil, as it tends to wash any lubricant or deposit out.-Cammen Laboratories, 42 West 39th Street, New York.

THE BLOOMING CUP

This is a lubricating cup designed to automatically feed oil to the bearings when the car is in motion. It is intended for steering knuckles, shackle bolts, axles and other parts where the wear is greatest. Its action is dependent on four unfailing factors: Splashing due to constant vibration, the action of gravity, capillary attraction and the suction caused by the flexing action of the bearing. Excessive flow is retarded automatically through a vacuum created in the cup. These cups have 1/4in. standard pipe threads, making them interchangeable with existing oil or grease cups. They have no valves, springs, balls, wicks, plungers, vents or moving parts of any kind and they are designed to work equally well with any standard brand of oil.-Bloom Flusher Co., Tiffin,



SCIENTIFIC CONSTRUCTION

GARAGES

. SHOW ROOMS

REPAIRSHOPS

Plan No. 1

Two-Story Service Building, 50 x 100 Ft.

Character of Business—Sale of Ford cars, tractors and accessories; repairing.

Details Wanted—Two-story building, 50 x 100 ft.; upper floor for showroom and car storage; repairshop in basement; driveway into basement for cars brought in for repair.

Name-W. S. Haigh, Oneida, N. Y.

Answer—This plan is drawn to meet your requirements. We should advise one change, however, and that is to place the shop across the rear of the first floor after the manner shown in so many Motor World plans, thus affording better light, making the shop more convenient to the office, and allowing it to be closed off, which advantages are lost by force of circumstances when the shop is located in your cellar.

The basement plan shown at the right of the cut illustrates how the cars could be arranged for the maximum amount of storage, but of course with repair work going on, the orderly arrangement would have to be done away with and many of the cars would have to be moved out.

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

Aside from the disadvantages of a cellar shop mentioned in the first paragraph of this answer, we must impress upon you the bad effects of dampness and darkness on the mechanical parts and finish of cars which are stored in a basement. This question has been brought up time and again and the answer always is that it is just as cheap to build another story on the building.

Plan No. 2

Sales and Service Garage in Small Town

Character of Business—Sale of Fords, accessories, supplies and repairs.

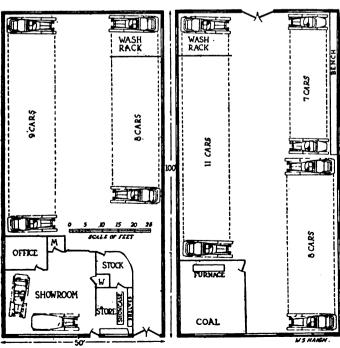
Details Wanted—Ford sales and service garage in rural town of 500 population; room for dead storage of cars and tractors.

Name-B. C. Ruggles, Riceville, Pa.

Answer—Since you have plenty of ground there is everything in favor of a single-story building, for it saves running up and down stairs and the cost and space required for installing an elevator.

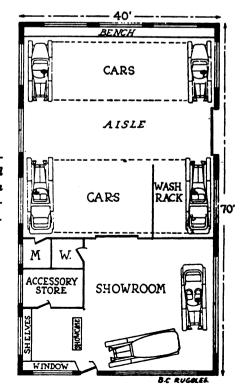
The plan is simple and requires no explanation.

If there is no other Ford service station in your town, you will no doubt want to pay a good deal of attention to service, and in such a case we would advise building a larger building than the one shown and devoting a considerable portion of it to service machinery, stock of parts and room for the service operations to be carried out. How much space should be devoted to this particular department can better be decided by the business possibilities of the locality.



Plan No. 1—First floor and basement of two-story service building designed for W. S. Haigh

Plan No. 2—Salesroom and service station for Ford cars, designed for B. C. Ruggles.





Plan No. 3

Garage and Salesroom on 125 Ft. Square Plot

Character of Business—Car distributer.

Details Wanted—Garage and sales building, 125 ft. square, three stories, with stores the entire front and side.

Name—Fifth Avenue Garage, Inc., Gary, Ind.

Answer—The details you furnish are so few that the best we can do, considering the large size of the building you plan, is to draw a layout which gives little more than the arrangement of the cars.

The car arrangement we have chosen is the only economical one for a plot of this particular size. It has the seeming drawback that not all the cars front directly on aisles; but as you probably know, this is really not a serious disadvantage since the cars in row B may be those which go out early, thus clearing the way for cars in row C, which cannot be placed in rows B or C because their going and coming are uncertain.

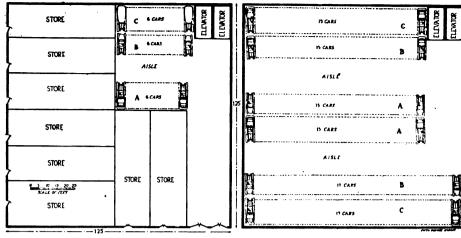
No provision was made for a shop because you did not mention it. The best location for the shop, if you plan to have one, is in the space taken up by rows B and C adjacent to the elevator. The remaining space on the floor is then best used for car storage by having two aisles and four rows of cars, each two rows of cars facing on one aisle.

Plan No. 4

Garage, Repairshop and Storage Room

Character of Business—Sell passenger cars and give service.

Details Wanted—Garage building on plot 237 x 100 x 56 ft; showroom, accessory store; driveway; room for



Plan No. 3—Garage and salesroom, 125 x 125 ft., for the Fifth Avenue Garage, Inc.

forty cars and repairshop for 20 cars; basement for storage.

Name—H. C. Lintott, Nashua, N. H.

Answer—We are unable to furnish you with complete plans and specifications, but have made a sketch of what we think is the best layout for this plot—provided, of course, that we have understood your letter correctly and that you have correctly reproduced the shape of the plot.

Owing to the shape of the plot, it has been possible to square off one side of the shop, placing benches along the division so that the machine tools, parts, etc., are in a corner by themselves and at the same time, no material reduction has been made in the size of the shop itself.

We have not shown any plan of a basement for storage as you have requested because we do not think that a basement is a good place to store cars. Basements are almost always damp and the lack of light is bound to have a bad effect on finely varnished surfaces so that both the mechanical parts and the finish would suffer. We are quite sure that owners would object very strenuously to such treatment of their cars, and even if they did agree to such a storage place it would certainly have to

be at greatly reduced rates. Therefore the most profitable thing to do would be to erect a second story which would hardly cost more than a basement when the expense of excavation is taken into account and cars could be stored on the second floor at the usual rates with no harmful effects whatever to the cars.

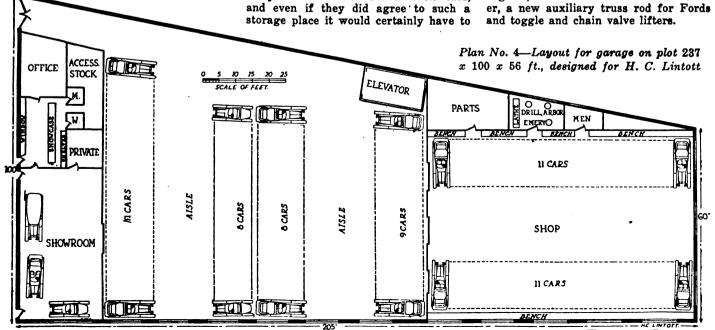
New Detroit Firm Sells Oakland

PONTIAC, Aug. 8—The Oakland Motor Car Co., of Pontiac, announces that in the future its products will be distributed in Detroit and surrounding counties by the Detroit Oakland Co. The new firm is headed by Frank J. Miller, who has opened a sales and service station.

Makes Motor Parts Now

MERIDEN, CONN., Aug. 8—The manufacture of automotive accessories has been taken up by Foster, Merriam & Co., a concern that has been in business here for eighty-five years. The line will include a timer for Ford cars, a spring valve lifter, an adjustable valve for Ford engines, a new valve refacer and reseater, a new auxiliary truss rod for Fords and toggle and chain valve lifters.

Digitized by



Editorial Observation

Educating the Educators

HEN agitation became rife as to profiteering the Federal Trade Commission, which is a worthy body and which can do a lot of good if given authority to operate in the best way, conducted an investigation on the price of shoes, concerning which MOTOR WORLD readers may have read in the newspapers before this editorial reaches the trade.

The commission's report states that too much profit is being made on shoes, which may be true somewhere along the line; but the figures it gives in its report on the methods of shoe jobbers and dealers are a trifle misleading to the public and are not quite in accordance with the best methods of modern business.

The misinformation comes when the commission tries to figure its gross profits on the cost instead of on the selling price, a practice which business has long since discovered is wrong and which leads to bankruptcy and failure if the rest of the business is no more up to date than that.

Some folks still believe that if a dealer buys an article for \$1 and sells it for \$1.50 he has made a profit of 50 per cent. The methods of best business, however, are to figure profits on the selling price and not on the cost, and a profit of 50 per cent on the cost is not a profit of 50 per cent. It is a profit of 33 1/3 per cent, or one-third of \$1.50, the selling price.

The commission states that in 1914 a certain working shoe sold to the dealer for \$1.25 and sold to the consumer at \$2.50, a profit of 75 cents. This is a profit of 30 per cent, figured, as it should be figured, on the selling price.

In 1918 this same shoe sold to the dealer at \$2.75 and to the consumer at \$4, a money profit of \$1.25, which is a profit of $31\frac{1}{4}$ per cent, as compared with a profit of 30 per cent four years before.

BUT—the Federal Trade Commission, by figuring on the cost instead of on the selling price, sets up comparative gross profits of 42 per cent and 45 per cent, instead of 30 per cent and 31½ per cent. In other words, the shoe dealer, operating according to what he knows are right business principles, has simply set his selling price so he will make the necessary 30 or 31 per cent, and is being severely censured. Probably newspapers all over the country will "bawl out" the shoe dealer for doing nothing that he didn't do four years ago and which he MUST do if he is to remain in business to provide shoes for the public.

The commission seems to have paid entirely too

much attention to the amount of money that is profit and not enough to percentages. Figuring on the same basis, it might be assumed that the motor car dealer makes too much profit when he takes a gross of \$400 on a \$2000 car, yet we all know how little the average retail dealer has left for net.

The commission suggests, as one step, that provision be made for informing the customer of the manufacturer's price on the shoes. The dealer could well afford to state the case plainly in his windows on a price card, stating that "This shoe costs us \$2. We sell it for \$3. Our profit is 33 1/3 per cent, or \$1. It costs is 72 cents to sell you the shoes. When we're all through we have 6 per cent, or 18 cents, left. We shall be glad to explain further any of these points for you. We are doing an honest business and desire an honest profit and no more. We cannot take less."

If more people—including some of the people we are paying to represent us in various capitals—knew more about business and less about law and politics we would all be a lot better off.

Automotive Dignity

ONE of the trade's well known distributers of automotive equipment has sent to Motor World a letter written to him by a certain company, offering him state rights on its product. In his reply he declined any part in the venture on the ground that the name of the article was not at all in keeping with the dignity of the automotive business. "Personally," he added, "we resent it."

The product bore a name that, for merchandising value and dignity, is a lot like "shimmy," "turkey trot" or "bunny hug." In fact, one who heard the name for the first time would probably think it the name of a new cabaret dance rather than the name of a product designed for use on motor cars.

This is not the only instance of foolish names being applied to products and businesses. Some folks seem to have an idea that a name that is in popular use is a good name for a piece of merchandise. They do not realize that the free advertising that comes through the popularity of the term is turned to almost ill-will when the term dies and is filed in the pungent archives of the slangster.

If your merchandise is good, give it a good name. (Continued on page 47)



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Ability to Recover on Certified Check

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OFTENTIMES on this page I have cautioned dealers about accepting uncertified checks from strangers. In a case lately decided the dangers of this habit of taking uncertified checks are clearly set out. In this action, commenced in the Circuit Court of St. Clair County on Oct. 18, 1917, plaintiff recovered a judgment against defendants in the sum of \$1,036.26 upon the following certified check:

No. ——, Palms, Mich., July 27, 1915. Palms Bank of Frank W. Hubbard & Co. Pay to the order of E. W. Mapes \$1,000 (one thousand dollars). Eli Sawdon.

Across the face of this was written the following: Good when properly indorsed. B. D. Wright, Cash. July 27, 1915.

Indorsed upon the back of said check were the following names in the following order: E. W. Mapes, Eli Sawdon, Flavel G. Briggs.

On July 27, 1915, when this check was certified, defendants were, and had been for a number of years, conducting a general banking business at Palms, Mich., under the name of the "Palms Bank of Frank W. Hubbard & Co." Bert D. Wright was and had been cashier of said bank for about seven years. Eli Sawdon and his father-in-law, E. W. Mapes, were customers of said bank. Flavel G. Briggs, one of the indorsers, was and is a resident of Arkansas, to whom Sawdon became indebted, and delivered the check as collateral security to notes given therefor.

Mr. Smith, the plaintiff, was and is also a resident of Arkansas, who received the check from Mr. Rachel, Briggs' attorney, in payment for 80 acres of land purchased for Briggs. Briggs and plaintiff, who consecutively acquired this check, each testified that he then had no knowledge of any claim against its validity, but took the same in good faith for a valuable consideration on the strength of its being what it purported.

The date of the check, certification and genuineness of signatures are conceded. The authority of Wright to certify the check and the innocence of plaintiff as holder are not admitted, and it is further contended that the delay which intervened between the time of issuance and time of demanding payment estops recovery.

The Court found that this certified check from a bank in Michigan found its way to and was put afloat by its payer in Arkansas, had apparently passed through several hands and bore the signature of three indorsers, the last being Briggs, a business man in White County, in that State, and in a deal for some land in Van Buren County was passed by his attorney and agent upon plaintiff with the assurance that it was genuine. Recognizing from his experience in dealing with banks and checks that it was a certified check in usual form, with "no intimation that there would be any defense to its payment," as he states, he accepted it in good faith in exchange for eighty acres of land. It was on its face under the law an absolute undertaking of the certifying bank to honor it when presented for payment at any time before barred by the Statute of Limitations. No obligations rested upon him to, at his peril, make investigation into the reason for and circumstances of its certification. We find nothing in the situation presented here which relieves defendant from its obligation under the well settled and somewhat emphatic rules of law established in recognition of the importance of the verity of certified checks as a medium of exchange in the business world under the law merchant. The judgment in favor of the plaintiff is affirmed.

On Filing Income Tax Return

E VERY taxpayer who has filed his Federal income tax returns since Jan. 1 of this year should now examine the works sheet which he retained to see if everything is in order. This is particularly important to persons who made out their returns in a hurry at the last moment.

It is a good idea where a return was prepared under the supervision of an attorney, bookkeeper or an accountant to have it reviewed by some person other than the one under whose supervision it was made.

Oftentimes when this is done, mistakes will have been made which can be more easily rectified now than if not discovered until a later date.

The income tax law provides remedies both for those who are assessed a greater amount of tax than what they should have been assessed and for those who paid too large a sum through mistake.

Forms for refunds and other abatements can be procured where the orig-

inal returns were procured. Where a taxpayer discovers that a mistake has been made in his return he should prepare a new one and file it with a notation to the effect that it is an amended return.

Where Automobile Theft Is a Felony

Editor Motor World: I am anxious to obtain a list of states that have in force a law which makes the theft of automobiles a felony punishable by one or more years in the penitentiary.—D. N., New York, N. Y.

New York, N. Y.
Answer—Kentucky has a law of the kind you mention which provides that such a crime is punishable by not less than two years nor more than five years imprisonment. There are only a few other states, such as Missouri, New York, Oregon, Indiana and New Jersey, which provide such severe penalties so far as we have been able to find. There may be other states which provide such a severe penalty, however, but if so, we have been unable to find them. It is very difficult to check up on this particular question because in a great many instances there is no reference in the various state motor vehicle laws to a matter of this kind, so, in addition, the penal or criminal statute must be examined, because in states like New York punishment for an offense of this kind is provided for in the penal law and we have not had access to the penal and criminal laws of all the states.

Canadian Patent Law

Editor Motor World: The writer owns a Canadian patent on automobile jacks dated in 1916. These jacks have been sold in Canada, but have not been manufactured there. Could you tell me if the fact that they have not been manufactured in Canada invalidates in anyway either temporarily or permanently the patent, and if so what is necessary to be done to restore it? Where can I get a copy of the Canadian patent laws?—Motor Supplies Co., John H. Whetstone, Lapeer, Mich.

Answer—Our law library here has no copy of the Canadian patent laws. I suggest that you write to some of the patent attorneys whose names can be found in the Classified Columns of Motor World. They will no doubt be glad to give you the information you want.

LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Who Gained at the Tractor Demonstration?

Editor Motor World: I have read with great interest your articles on the uselessness of the Wichita demonstration as staged last month.

This is really the first big demonstration I have attended outside of Fremont. Neb., but the so-called "little" demonstrations we have had in the East so far surpass the big one that everything in your articles coincides perfectly with many people's views as well as my own.

I do not desire to criticise unjustly, but can any company show where Mr. Farmer has gained any knowledge by attending the demonstration? I have tried to place myself in his place and I think if I had to decide on a machine by the quality of work done I would just number each contestant, if I may call 'em such, and put duplicates in a hat, shut my eyes and grab one and hope the price wasn't too high.

I firmly believe the only test that amounts to anything in the mind of either the ultimate purchaser or dealer is to allot sufficient ground for three 10hour working days and compel each manufacturer to plow, disk, fit and seed within the time specified.

After the drawing features of tractors has been demonstrated, arrange practical demonstrations of belt work, as Mr.

Farmer wants to see this done and this feature is being side-tracked to a very great extent.

I, for one, admire Motor World much more for the fearlessness with which it has called a halt to the foolish expediture and waste and hope you will accomplish the desired results, which are real demonstrations, the same as you did with higher discounts to the dealer which you so strongly advocated.-R. A. Loftus, Hession Tiller & Tractor Corp., Buffalo,

Concerning Tractor Demonstrations

Editor Motor World: We are enclosing a photograph which may be of interest to you, as it shows a Heider tractor loaded on a truck ready to start out for a demonstration. The rear platform of the truck can be lowered to any angle and there are two planks in the center of the bed which can be pulled back down over the lowered platform for the tractor wheels to run on. We can load or unload the tractor in five minutes under its own power. The spikes or cleats on rim of tractor can be run over streets or roads. In the loaded tractor you will see the wheels equipped, all ready to begin work in the field the minute she is unloaded.

moves the tractor easily and quickly from one prospect to another. We are touring Western Pennsylvania with a Heider tractor loaded on a four-ton Winther truck, with body built

The truck is a great time saver, as it

specially for the purpose as described above.—Crowl Bros. Motor Co., New Castle, Pa.

India, Mesopotamia and the **Motor Car**

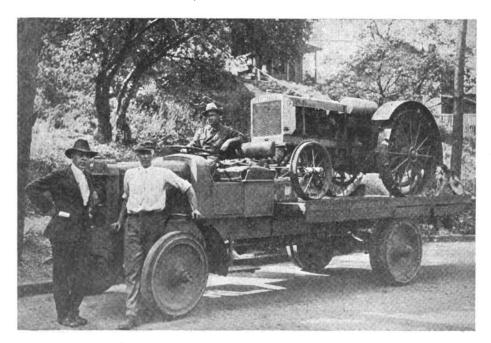
Editor Motor World: In reply to yours of May 23 we note that you have received our letter and photograph of the De Luxe 2-seater that we are placing on the local market. Since writing you, demands for this model have been very large indeed, so much so that we cannot turn out the cars quickly enough to sup-

With reference to business generally, since the prohibition against importing motor cars into India was removed, the motor business generally in India has received a tremendous impetus. During the period of the war we think we are right in stating that most of the motor business was kept going largely by repairs to old cars and supplies of ordinary accessories, etc. In our own case, we have been doing business with the Government, having supplied them with no less than 400 cars during the last year, besides several thousand rupees worth of Ford spare parts.

Our pre-war sales of Ford cars in this district amounted to about 300 per year. Since the prohibition has been removed we have received orders for 670 Fords of various models, about 200 of which we have already received and delivered. We are now booking orders as far ahead as October and November, owing to the unprecedented demand and owing to the difficulty of obtaining quick deliveries from America.

The war has been about the finest advertisement the Ford car has ever had. There is no question about it that in Mesopotamia the war was won by the Ford car, as, with the exception of the Rolls-Royce, practically few other cars were of any use, owing to the want of roads. As our business is solely confined to distributing of Ford cars and one high-priced English car, the Napier, we do not know very much about the conditions of other car sales in this country.

Of course, sales of all cars just now are unprecedented owing to the fact that new cars have not been seen in India for the past four years. How long this will continue one cannot tell, but, as regards he Ford, there can be no doubt



The photograph sent by the Crowl Bros. Motor Co., New Castle, Pa., illustrating the manner in which a Heider tractor is loaded on a truck for demonstration work

that the demand will always be exceedingly large, partly owing to the low initial cost, but mainly owing to the service in spare parts available in this country.

We very much appreciate your weekly edition of the Motor World which we receive regularly through our New York agents, Messrs. Dodge & Seymour, Ltd. The aricles in it, also the various hints and tips, are in many cases most useful, and even if they are not altogether applicable to India in the form in which they are given, in many cases we find that the ideas mentioned form the basis of new ideas which prove most useful to us in carrying out our business.—Ford Automobiles (India) Ltd., H. E. Ormerod, Director.

The Tax on Chassis and Trucks

Editor Motor World: We had some correspondence with you some time ago, a part of which you reprinted in your magazine in connection with the war tax on Ford 1-ton trucks. This question has again come up and we would appreciate it if you would give us the latest information you have along the following lines:

If we buy a truck chassis from the Ford company and pay them 3 per cent on the wholesale value of same, and buy the body of a local manufacturer and pay the Government, through them, the 5 per cent tax of the body and combine the two and sell it as a complete truck, are we, or are we not, obliged to make any return to the Government?

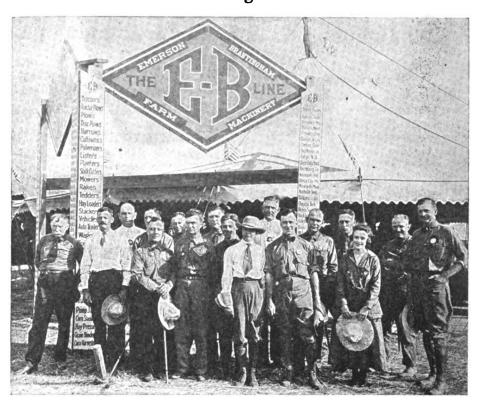
You stated in Motor World some time ago that the dealer did not have to pay any attention to tax, and that has been the contention of our attorney all the time, but the Syracuse collector apparently believes that we are liable for 3 per cent of the total selling price, after freight, gas and oil have been subtracted, minus the tax already paid on the body and chassis.—Henderson & Lathrop, Auburn, N. Y.

Answer—We have your inquiry regarding taxes on a truck made up in the way you describe and beg to inform you that the position of the Syracuse tax collector is correct.

However, you may find it possible to save some money by adopting the certificate plan of purchasing the body, getting blanks for this purpose from the collector. By serving upon the body manufacturer a certificate stating the use to which you intend to put the bodies which you purchase you can obtain them tax free. This leaves you free to go ahead and assemble the chassis and body, then paying the government the tax on the completed vehicle.

The law intends that there shall be no duplication in taxation, but at the same time regards a firm assembling parts of a machine as a manufacturer, so under these conditions you are not able to go ahead and pay no attention to the tax, as would be the privilege of a dealer in vehicles purchased completed from a manufacturer. You must file a return on which will be based an adjustment of taxes paid by the manufacturer, or by you through him.—Editor.

Sales Folk in Working Clothes at Wichita



Two women and fifteen men comprised the staff of the Emerson-Brantingham Implement Co. at the National Tractor Demonstration at Wichita The outst. lined up in front of the exhibit tent, shows, from left to right: H. N. Packer, service man; Mr. York, B. M. Rice, B. R. Rion, Mr. Zeis, T. R. Blake, H. B. Hertzler and W. C. Lenter, salesmen; Alan Brantingham, scrvice man; Miss Marion Shoop, special driver; O. E. Kincaid, salesman; J. J. Marshall, foreign sales manager; W. G. Randel, salesman; H. M. Roberts, agricultural extension division; Miss Way, advertising assistant; H. G. Brown, salesman; Frank M. White, manager farm power bureau

Are "Not Responsible" Signs Good?

Editor Motor World: I note that your Legal Department often advises garagemen that they are not responsible for the theft of car or contents, which may be correct, but from a business point of view, why does a person travelling by auto want storage if not for protection?

As cars are used in all kind of weather, a night outdoors would do little harm. As the getting of supplies is common without putting the car in storage it would seem unnecessary for the purpose; small repairs the same. Risk from fire is certainly less on the street than in a garage; hence, unless the garage will say that the car and contents are safe from theft, why not leave the car in the street—as I am doing under such conditions? What else does the traveller want but protection?

I appreciate that your Legal Department discusses only from a legal standpoint, but the Legal Department is a part of the paper, the paper is supposed to benefit the garageman in making money by selling goods and service and he can only continue to make money by continuing to sell goods and service. If the service is not satisfactory the customer will go elsewhere if he can do better; or even do without. Hence it would seem to me up to the whole paper to discuss that on which one of

its parts gives admittedly a one-sided view, from a business standpoint.

The "Not Responsible, etc." signs can give the idea that the place may not be very responsible for other things than theft. That is, if not enough attention is paid to prevent the common pawing over of cars and contents, it seems likely to the stranger that attention may be lacking in other lines.

"Keep away from cars not your own" is a sign much more encouraging to the stranger and probably also to the regular customer, especially if he knows the rule is enforced.—H. G. Woodward, Weld, Me.

Changes in Garlock

LANSING, Aug. 9—M. L. Garlock, general sales manager of the Garlock Sales Co., and Harry Bennett, cashier of the Capital National Bank, have purchased the interests of Ralph Ballintine and J. D. Clarkson in the Garlock company. The company is Overland distributer in this territory.

Chandler Higher Soon?

DETROIT, Aug. 9—It is reported in dealer circles here that the Chandler Motor Car Co. will advance the price of its closed models shortly. The Allen Motor Car Co. of Columbus, Ohio, is also contemplating a price increase, it is understood.

The RETAIL NEWS

NORTHWEST

Earl Clark, Coon Rapids, Iowa, has purchased the Jones Auto Co.

John Fisher, Plover, Ia., has bought the garage of Theo. Kietman.

Roy Timmons, Manchester, Iowa, has sold his interest in the Manchester Auto & Supply Co. to H. F. and F. H. Arnold.

The Broadway Garage, Fairfield, Iowa, has been purchased by Herbert Atherton.

Howard Marshal, Anita, Iowa, has been made manager of the new branch of the Atlantic Auto Co.

Richardson Bros., Mason City, Iowa, have taken the Oldsmobile agency, opening salesrooms at 109 First Street.

The Chaffin-Jameson Co., Mason City, Iowa, has opened a sales and service station for the Maxwell line.

The Hansell Auto & Tractor Co., Indianola, Iowa, has been organized to sell Hudson and Essex cars and the Cleveland tractor.

Browne & Lester, Indianola, Iowa, have taken the Buick agency.

L. H. Lewis, Clarion, Iowa, has opened the West Side Garage.

Roy P. Nokes, Nevada, Iowa, has opened a new battery service station.

The Larson Auto Co., Nevada, Iowa, has taken the agency for Maxwell trucks.

The Peverill Motor Co., Waterloo, Iowa, is constructing a new sales and service station at East Thirty-fourth and Franklin streets.

The Spars Auto Repair Co., Waterloo, Iowa, has built a new garage at 816 Saxon Street.

C. J. Highland, Iowa Falls, Iowa, has opened a tire and accessories sales room at 416 Washington Street.

Fleming-Bailey, Cedar Falls, Iowa, have opened a new sales and service station for the Oldsmobile line.

C. Nightingoli, Waterloo, Ia., has opened a garage at 304 Richl Street.

W. I. Busbee, Waterloo, Ia., has a new garage at 44 Parker Street.

The Repass Automobile Co., Waterloo, Ia., has moved to the new building at Third and Cedar Streets. This company distributes Fords and Fordsons.

The Cramer Motor Car Co., Waterloo, Ia., has added the Oldsmobile to the line of Franklins and Marmons.

George Muller and W. J. Becker, Waterloo, Ia., have opened the Central Battery & Electric Co. at 318-20 East Fifth Street.

H. E. Paulson, Waterloo, Ia., has established a used car exchange at 108 East Fifth Street.

The Auto Tire Service Co., Waterloo, Ia., has been formed by Fred Thomasen, with a service station at 106 West Fifth Street.

W. E. Scott, Waterloo, Ia., has opened a new garage at 615 East Fourth Street.

The United Iowa Vulcanizing Co., Water-loo. Ia., is the name of M. D. Brown's new service station at 400 West Fifth Street,

The Baum McDonald Co., Waterloo, Ia. has succeeded the A. E. Baum Co., and has moved to new quarters at 710 Lafayette Avenue. The company handles the Lexington.

The W. C. Motor Co., Waterloo, Ia., has succeeded the Waterloo Nash Co., occupying the quarters at 417 West Fifth Street.

The Ottumwa Battery Works, Ottumwa, Ia., have opened a Willard Service Station at 134 West Second Street.

C. G. Nelson & Sons, Ottumwa. Ia.. have opened a tire service station and repair shop at 213 West Main Street.

Daggett's Garage, Ottumwa, Ia., has moved into new quarters on West Second Street.

Eldridge Battery Co., Ottumwa, Ia., has been succeeded by the Ottumwa Battery Works.

L. H. Lewis, Clarion, Ia., has taken the agency for Cleveland tractors and Hawkeye trucks for this territory.

George H. Oldham, Fairfield, Ia., has opened a Prest-O-Lite service station here.

Hannah Auto Co., Fairfield. Ia. has succeeded the Hannah Clinkenbeard Co., Studebaker dealer here.

Stack & Kipp, Fairfield. Ia., have taken the Willard agency here and will operate under the name of the Fairfield Battery Co.

Feres & Barlow Garage, Sigourney, Ia., has been succeeded by J. P. Feres Garage. Barlow has retired to engage in other lines.

Dupls Bros., Sigourney. Ia.. have opened a vulcanizing store and tire salesroom here.

Shifflett & Bowman, Sigourney, Ia., have opened a repair shop here.

Humphries Garage, Sigourney. Ia., has been sold and the new owner will take possession soon.

George Schremp, Sigourney, Ia., has opened a tire shop and taken the agency for Savage tires.

Korver & Grant, Pella, Ia., have opened a tire service depot and repair shop.

A. Willard, Pella, Ia., has opened a welding and machine shop at 215 East First Street.

A. Ver Meer and L. Willardt, Pella, Ia., are operating the White Way Auto Co.

Pella Motor Co., Pella, Ia., has added a tire department to its garage business.

The Electric Shop, Pella, Ia., has taken on the distribution of the U.S. L. batteries.

Schnorr & Morgan, Spencer, Iowa, who recently took on the Dort, have added the Liberty.

E. S. Calkins, Thornton, Iowa, has purchased the Thornton garage from C. A.

The Pittman & West Garage, Avoca, Iowa, has been sold to Booth & Olsen.

Ray Mathews, Knoxville, Iowa, has sold his interest in the Knoxville Auto & Supply Co. to Pierre Bosquet and Worth Wagner.

A. C. Frederick, Osceola, Iowa. has sold his tire retreading plant to Walter and Arthur Graves.

White & Person, Redwood Falls, Minn., sold their Ford agency and business to Fred Carity.

M. Grutzmacher, Albert Lea, Minn., has bought out the garage business of E. M. Stone.

The Zenith Retreading & Tire Co., Duluth, Minn., has suffered \$5,000 fire loss.

H. F. Meyer, Sleepy Eye, Minn., has bought for his son, Albert Meyer, the Wooldrick East End Garage.

George and Joseph Vanucra, Lakefield, Minn., have bought the Schulz garage and expect to continue the business.

Minnesota Motor & Warehouse Co., St. Cloud, Minn., is a new automobile and storage company beginning business with \$250,-000 authorized capital.

H. W. Main, Browning, Mont., bought the James Stewart garage and has taken possession and is conducting the place.

Alex. Allen, Thompson Falls, Mont., has succeeded the firm of Allen & Craig, former proprietors of the Power City Garage.

H. A. Cleveland, Redstone, Mont., has bought out the L. G. Brastad interests in the garage business.

J. W. Reld and T. M. Morrison, Roundup, Mont., have bought the W. J. Nix garage on First Street East.

The Auto Electric Service, Sioux Falls, S. D., is a new organization to operate a service and repair station for electric automobiles. The organizers are Charles Hathaway and J. M. Pryde of Sioux Falls and R. G. Arthur of Sioux City, Ia.

William Braumann, Eagle Grove, Ia., has opened a tire station and repair shop.

The Hobble Overland Agency, Hampton. Ia., is erecting a garage.

The Motor Service Co., Mason City, Ia., has been formed to sell automotive equipment. M. S. and Paul Barclay are the managers of the business, located at 12 South Delaware Avenue.

The Jensen Automobile Co., Clarion, Ia., has taken the agency for the Dodge line.

A. E. Carr, Clarion, Ia., is enlarging and improving his garage.

The O'Dea Motor Co., Clarion, Ia., Ford distributer, is erecting a new garage.

SOUTHWEST

The Cusick Palge Motor Co., McPherson, Kan., has been organized to handle the Paige line.

F. E. Peterson, Marquette, Kan., is the new Paige dealer.

The Southwest Motor Car Co., Salina, Kan., will move into new quarters. A line of accessories will be added.

The Oklahoma Auto Supply Co., Muskogee, Okla.. will nove into large new quarters at Sixth Street and Broadway. The company distributes the Ford.

The Triangle Motor Co., Marshall, Tex., has been incorporated with a capital of \$8,000. The incorporators are George T. Bishop, M. R. Newnham and J. D. Bishop.

The Gould Battery & Service Co., Dallas, Tex., has been incorporated by W. B. Tobian, H. Langle and W. B. Clayton with a capital of \$6,000.

J. D. Shields and R. A. Rode, Belleville. Kan., have taken the agency for the Dodge Brothers car for Republican and Washington counties.

Bundy's Tire Shop, Cottonwood Falls, Kan., has been opened.

B. J. Berkshire, Sterling, Kan., has taken charge of the Willard service station which has just been installed.



R. E. Henderson, Neodesha, Kan., of the Neodesha Motor Company, agent for Overland cars and Moline tractors, has started work on a new building.

The Carrier & Ransom Motor Co., Topeka, Kan., have opened for business, handling the Denby truck.

The Neal Motors Co., Topeka, Kan., has moved into its new quarters at 1026 Kansas Avenue.

R. E. and O. J. Antry, Pittsburg, Kan., are erecting a modern three-story fireproof garage building at Arkansas City, Kan. Part of the building will be used for the handling of automobile accessories.

Miss Nora H. Ames, Lawrence, Kan., has established a shop on Massachusetts street, where she will handle tires, accessories and tubes.

Joseph Daney, Greensburg, Kan., has opened an automobile salesroom.

The Auburn Texas Tire Company, Houston, Tex., a wholesale firm to distribute Auburn tires in South Texas, has opened for business.

B. Prassle is president of the new company.

A. N. Eilis, Brunswick, Mo., has opened a vulcanizing shop.

S. Tant and H. Maricie, Grandfield, Okla.. are erecting a two-story brick building which will be occupied by the Chandler Auto Agency and the Tillman County Motor Car Co., which handles the Paige car.

The Climber Motor Co., Little Rock, Ark., has been organized to take over and merge the Climber Motor Co. of Poteau, Okla. The company is capitalized at \$1,000,000. The officers are: W. F. Drake, president; D. Hopson, vice president, and F. A. Pope, secretary.

MIDDLE WEST

The Campbell-Dilley Sales Co., Warren, O., will erect a new salesroom and service station on South Pine Street.

Wilbur Jones, Ironton, O., will construct a new garage at Third and Lawrence Streets.

The L. S. Buchan Co., Cleveland, O., has opened a new store at 1820 Euclid Avenue.

The Beeman Garage Door Co., Akron, O., has been chartered with a capitalization of \$50,000.

The Hotcher Co., Springfield, Ill., has opened a used car department at 703 East Adams Street.

Basil W. Ogg, Springfield, Ill., has been appointed representative for Central Illinois for the Detroit Electric, and has opened a salesroom at 921 South Walnut Street.

Quincy Electric Supply Co., Quincy, Ill., has taken the agency for the Vesta battery.

Thompson & Dickson, Quincy, Ill., have formed the Essenkay Service Co. and have opened a service station at 9th and State streets.

Osgood & Brooks, Quincy, Ill., are opening a tire service station and salesroom at 701 Main Street, where they will handle local distribution of Perfection tires.

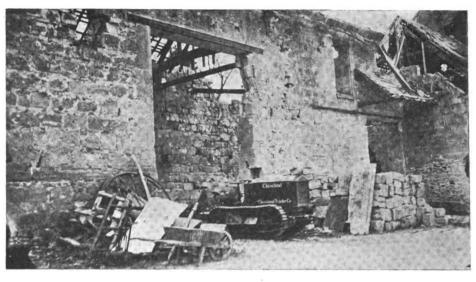
Great Western Motor Sales Co., Quincy, Ill., has been formed to handle distribution of the Monroe car for this territory.

E. C. Long Co., Quincy, Ill., has taken the agency for the Moline Universal tractor.

C. J. Wells, Quincy, Ill., has opened an Exide battery service station at 233 North Sixth Street.

Clough Reihm Co., Quincy, Ill., has remodeled its accessory department at its downtown store and will have it in the same building as the sales department.

Plank & Johnston, Quincy, Ill., Stude-baker distributer, is moving into new quarters at 304 Main Street, formerly the Irwin Overland Co. headquarters.



This picture shows a Cleveland tractor in the yard of a devastated farm in northern France, the photograph of which has just been received from B. V. Edworthy, a Y. M. C. A. worker with the A. E. F. It was taken at Cutry, near Curves, where the famous First Division of regulars "jumped off" for the offensive of July 18, 1918. The tractor had just finished bringing up a load of lumber used in rebuilding the ruined village.

W. L. Childers Auto Co., Quincy, Ill., Hudson and Essex dealer, is being reorganized and will be known as the Quincy Motor Car Co. The new company will move into the Jersey Street Garage. W. I. Childers is president and C. Lawrence Wells secretary-treasurer. They will add a truck and tractor line as soon as they are in their new location.

Johnston Plank Auto Co. Quincy, Ill., incorporated with a capital of \$30,000 by J. E. Jefferson, Albert Plank and Charles W. Johnston. The company will sell Studebaker cars in that territory.

Meyers Repair Garage, Quincy, Ill., has been opened at 828 South Eighth Street.

Irwin Motors Co., Quincy, Ill., formerly Marmon distributer, is retiring from business. Its garage and salesroom have been leased to Johnston & Plank Co.

Abbott Bros., Quincy, Ill., have opened an electric storage battery and magneto repairing and service station at 727 Main Street.

The Kean-Myers Motor Sales Co., 505 East Broadway, Louisville, Ky., Columbia distributer, has acquired the agency for the Haynes.

The Mattingly-Hubbard Motor Co., 914 South Third Street, Louisville, Ky., agent for the Pan-American, has been appointed Apperson distributer for Kentucky, Southern Indiana and Northern Tennessee.

The Parker Tire & Rubber Co., Indianapolis, will open a Louisville branch soon.

PACIFIC COAST

Trans-Pacific Motor Co., Seattle, Wash., Indiana truck distributer, has changed its temporary location from Jackson Street to 10th Avenue and King Street.

Franklin-Wicks Co., Seattle, Wash., has moved to its new home at 1522 Belmont Avenue.

Thomas M. Hart Co., Seattle, Wash., ball bearing concern, has incorporated under the new name of Sales & Service Corp.

G. H. Carl, Carlton, Ore., has opened a salesroom for the Liberty Six and Briscoe, under the name of the Carlton Garage.

Sparks Supply Co., Vancouver, Wash., Dodge and Studebaker agent, will construct a new concrete and brick salesroom, repair shop and service station.

G. H. Wilde Co., Portland, Ore., agent for the Case car and Denby truck, will erect a concrete building, 100 x 100 ft.

Chansior & Lyon Co., Seattle, Wash., accessory dealers, will erect a 3-story structure of pressed brick, 120 x 120 ft.

Southwest Washington Auto Co., Chehalis, Wash., will occupy a new concrete building, 100 x 105 ft.

The Rueben Motor Car Co., Portland, Ore., will erect a one-story, 90 x 100 ft. brick building at Broadway and Hoyt streets.

Goodyear Tire & Rubber Co., Spokane, Wash., will erect a tire service station, the building to be one-story, brick, 77 x 25 ft.

The Jensen-King-Byrd Co., Spokane. Wash., is the distributer of Mohawk tires in its territory.

W. G. Fitzgerald, formerly Kentucky representative of the Mohawk Rubber Co., Akron, now has charge of the San Francisco branch of the company.

The Western Sales Motor Co., Salt Lake City, will erect a new display and service station for the sale of the Lexington.

EAST

Capt. Malcoim E. Parrott, recently discharged from the Ordnance Department, United States Army, where he was in charge of Gevernment work at the plant of the Kissel Motor Car Co., Hartford, Wis., has purchased the controlling interest in the Van Motor Co., Newburgh, N. Y. This concern will hereafter be known as the Parrott Motor Co. Before entering the army Captain Parrott was connected with John Van Benschoten, Poughkeepsie, for eighteen years.

Stanley W. Salaman, Wilmington, Del., has purchased the building of the Eleventh Ward Garage, Harrison and Sycamore streets, and will enlarge and remodel it at a cost of \$50,000. In addition to having a service and storage station with accommodations for 130 cars, he will handle locally the National, Mercer, Saxon and American lines.

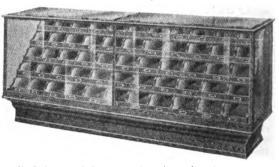
Trask, Prescott & Richardson, Erie, Pa., have opened a tire and accessory store.

The Kaylor-Carroll Garage Co., Pittsburgh, Pa., has applied for incorporation.

The Pittsburgh Garage, Pittsburgh, Pa., has filed papers of incorporation.



Display Your Parts and Equipment



A T the left is a set combining wall shelves and drawers of various sizes to accommodate different classes of goods. The shelves are adjustable and the fixture is 8 ft. high. Price \$23 per ft. The compartment case at the right has glased top and ends and the interior is equipped with a fixture carrying the drawers. Each drawer pulls out separately and has a card holder and pull. Price \$18 per ft.—Detroit Show Case Co., 472-490 West Fort Street, Detroit.

J. W. Forsythe, Carnegie, Pa., with A. S Burk, will take over the garage owned by his father, George B. Forsythe, changing the name to the Washington Motor Co.

THE SOUTH

Cruse-Crawford Manufacturing Co., Birmingham, Ala., will erect a 3-story white tile building, 150 x 140 ft. as a sales and show room for National and Stephens cars and Republic trucks, which it distributes.

The Granville Motor Co., Oxford, N. C., will soon occupy its new garage, sales and service station. This company is a subsidiary of the Oxford Buggy Co.

C. R. Rawis, Greensboro, N. C., president of the R. K. Motor Co., has purchased the Bandy property on North Elm Street, and will erect a building for the company, now at 227 South Elm Street, and having distribution in the State for Lexington, Allen and Scripps-Booth cars. It will have a sales and show room, with garage facilities in the rear.

John Winder's Service Station, Greensboro, N. C., at the corner of Elm and Gaston streets, has been opened.

The United Motors Service, Atlanta, Ga., will erect a new structure at Peachtree and Pine streets.

H. F. Shepherd, manager of the automotive equipment department of the Toledo Rubber Co., will join the organization of the Baldwin Supply Co., of Charleston, W. Va. This company will enter the automotive equipment business as jobber.

The Reo-Cornelius-Spaulding Co., Louisville, Ky., has just been appointed distributer for Reo cars, and has opened an office and salesroom at 931 South Third Street.

The Haury Motor Co., Louisville, Ky., has acquired the agency for the Scripps-Booth and opened an office and salesroom at 811 South Third Street.

Jesse W. Embry, Louisville, Ky., has been appointed distributer for the Hassler shock absorber in this territory.

Pickreil & Freeman, Louisville, Ky., Detroit battery agents. have moved into their new shop at 304 West Breckinridge Street.

Strube's Garage, Louisville, Ky., 432 E. Broadway, Kissel Kar dealer, has been appointed distributer for the Chandler and Cleveland cars in this territory.

NEW GARAGES

Seattle, Wash. Bateman-Switzer Garage. Great Falls, Mont. W. Hingston & Co. (50 x 150),

Vancouver, B. C.

M. J. & J. B. McNerthney... Tacoma, Wash.
J. A. LaGasa (100 x 120.... Tacoma, Wash.
Ole Oas....... Minto, N. D.
Carrington Motor Sales Co... Carrington, N. D.
Olson & Jaeb...... Lisbon, N. D.
R. W. Kerr..... Fryburg, N. D.
E. E. Thuney...... Moorhead, Minn.
Maguire Bros....... Crosby, Minn.
Murphy Co. (two stories)... Ironton, Minn.
C. B. Erdell (tire shop).... Moorhead, Minn.
P. J. Gregerson (addition 25 x 150),

Little Falls, Minn.

James Fosika (electric repair shop),
Olivia, Minn.

Hendal & Hendal (repair shop),

Red Wing, Minn.
A. E. Jensen (paint shop)...Rushford, Minn.
R. N. Aarestad.......Dawson, Minn.
W. M. Owen & Co........Hines, Minn.
Kennedy & Farrell....North Branch, Minn.
Dahlstrom & Son (remodeling),

Eagle Bend, Minn.
Red Wing Auto Supply Co...Red Wing, Minn.
Walter ZimmermanStanton, Minn.
Tomilson & Meeghan....Two Bridges, Mont.
Packard Montana Service Co. (Thos.

Ave., Madison, Wis.

Ahrendt & Gruetzmacher (50x50), 557 37th Ave., West Allis, Wis.

Park Motor Co. (60x120), 1116 N. 8th St., Sheboygan, Wis.

Chetek Auto Co. (60x120), Chetek (Barron County), Wis.

Niememsyk & Ficht (40x140), 5201 Greenfield Ave., West Allis, Wis.

C. E. Mahew, 50 x 150 feet, \$10,000

Enid, Okla. C. O. McCoy, Buick distributor, \$7,500

Neodesh Hewitt & Graham will erect

Bowling Green, Mo.

McGee-White Corp. Will Represent Field MINNEAPOLIS, MINN., Aug. 8—The McGee-White Corp. organized recently, has taken on the exclusive distribution for the Field line of commercial bodies in the Northwest. Their temporary head-quarters will be at 911 Hennepin Avenue. The president will be J. J. White of Fargo, N. D., A. N. Paulsrud will be vice-president and M. Leren secretary. R. B. McGee, formerly manager for the Schurmeier Body Co., St. Paul, will be treasurer and manager.

New Lauson Dealers

NEW HOLSTEIN, WIS., Aug. 9—New dealers to handle the Lauson tractor were announced here to-day by the John Lauson Manufacturing Co. The list follows:

W. G. Clark, Dinsmore, Sask., Canada. C. Fitchell, Tessier, Sask., Canada. J. Lowrie, Kinnistino, Sask., Canada. T. A. A. Wright, Lloydminster, Sask.. Canada.

T. A. A. Wright, Libyuminster, Sasan.
Canada.
Dopking & Ferch, Bathgate, N. D.
Ed. K. Onstad, Lakota. N. D.
Wise Hdw. & Implement Co., Modesto, Cal.
Roy J. Gardiner, Glimore City, Iowa.
Detthoff Hardware Co., Muscatine, Iowa.
Wm. Mueller, Glenbeulah, Wisconsin.

Vesta Plans Service Station for 100 Cars

CHICAGO, Aug. 8—A service station on Michigan Boulevard on which battery service can be rendered on more than 100 cars at a time is planned by the Vesta Accumulator Co. It has purchased the building and land now occupied by the Chicago Motor Club for the service station.

A Department of

BETTER MECHANICS

No. 112

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the eighth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

ORD cars are fitted with either Kingston model L or Holley model G carbureters. In either case there is but one mixture adjustment, that being the needle valve. There are no supplementary air valves or anything else requiring adjustment providing the other parts of the carbureter are in perfect order.

The Kingston

The usual method of adjusting the carbureter is:

- 1-Start the engine.
- 2-Advance the throttle.

What Has Been Covered

System in handling Ford service Labor operations covering repair work

Segregation of work Arrangement of departments Disposition of old material

I-The power plant

- Removing the engine from the car.

 Taking down the engine.

 Testing and straightening the crankshaft.

- crankshaft.

 Rebabbitting the cylinder block.

 Reboring the cylinders.

 Fitting new pistons.

 Aligning the connecting rod.

 Fitting the rings to the pistons.

 Burning in the bearings.

 Testing and overhauling the magneto.

 Overhauling the transmission.

 Minor engine repairs.

This Week

The Carbureter

3-Retard the spark.

4-Cut down the gasoline supply by screwing down the needle valve in a clockwise direction until the engine begins to misfire.

5—Gradually increase the supply by turning the needle valve in the opposite direction until the engine picks up and reaches its highest speed and with no

trace of black smoke at the exhaust.
6—Tighten up the binding screw or lock nut sufficiently to hold the needle

valve in this position.

7-Should dirt or sediment clog up the spray nozzle, open the needle valve half a turn and give the throttle valve two or three quick pulls to race the engine. This will generally create sufficient vacuum at the needle-valve orifice to pull the obstruction through and the needle valve can then be reset to its correct position.

8-The drain cock should be opened occasionally to free the chamber of dirt and water.

The Holley

To adjust the carbureter:

1-Loosen the needle valve locknut until the needle turns freely.

2-Screw the needle valve in a clockwise direction until the needle valve touches the seat. Do not turn too far or use pressure or the seat and the point of the needle will be damaged.

3-Turn the needle to the left one complete turn. This is approximately the correct mixture for most cars, but it may vary between seven-eighths of a turn and one and one-quarter turns.

4-Screw the locknut down till it prevents the needle from turning through vibration, yet is loose enough to be turned by hand.

5-Start the engine, choking if necessary, and let the engine warm up.

Next Week

Assembly of Engine and Transmission

Future Installments

The ignition system Testing and running-in the engine The radiator Rear assembly Front assembly Chassis frame and dash

Body, top and windshield The steering gear

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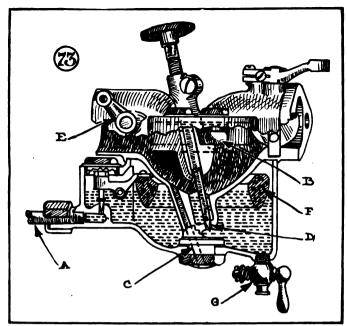


Fig. 73—Section of Kingston Model L carbureter. A is the fuel intake, B the air valve, C the low-speed tube, D the fuel nozzle, E the choke throttle, F the float and G the drain cock

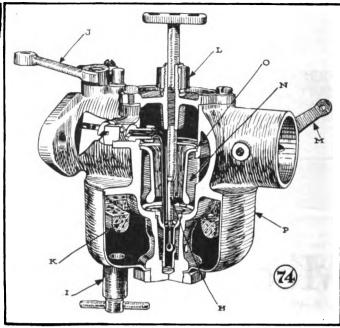


Fig. 74—Section of Holley Model G carbureter. H is the needle valve, I the drain cock, J the throttle lever, K the float, L, needle valve locknut, M, choke throttle lever, N, choke tube, O, locking ring and P, bowl

6—The adjustment can best be made by slipping the dash control rod out of the holes in the needle valve and turning the needle valve itself.

7—Turn the needle valve one way or the other till the engine does not backfire through leanness of the mixture, nor does black smoke come from the exhaust through richness.

Setting the Float on the Holley

In any carbureter, the fuel level must be maintained at a certain height in the bowl so that it is slightly below the level of the fuel nozzle or needle valve. In the case of the Holley Model G, there are certain set maximum and minimum levels outside of which the carbureter will not give satisfactory results. It is very easy to check these up with a

1—Such a gage is made of flat steel stock 5/16 in. wide, ½ in. thick and 6 in. long. Fig. 75 shows the gage. A slot is filed in each end 3/16 in. wide and 3/16 in. deep. This leaves two points 1/16 in. thick at each end.

2—File one of these points at one end so that it is 1/16 in. lower than its mate.

3—File one of the points at the other end so that it is % in. lower than its mate.

4—Inasmuch as the level of the gasoline in the bowl should be from 1/16 to 1/8 in. lower than the top of the nozzle, the points will show whether the level is too high or too low.

5—Place the gage so that the short point of the low-level end of the gage rests on the point of the cup at one side between the wrench lugs, holding the gage in a vertical position.

6—The gasoline should touch the long point of the gage. If it does not touch it, the level is too low and the float should be adjusted accordingly. See

later operations for adjustment of the float.

7—If the level of the gasoline comes above the longer point of the low-level end, turn the gage end for end and apply the same test, but this time the gasoline should not touch the long point, or at least it should just barely touch it. If the long point dips into the gasoline, the level is too high and the float should be adjusted accordingly.

8—The best operation of the carbureter is secured at the 1/16-in. level.

9—To raise or lower the level of the fuel, the float lever is bent up or down as the case may be. Fig. 76 shows the operations of lowering the level by bending or prying the lever up or raising the level by bending the lever down.

10—It is desirable to make the float stand at a slight angle away from the flange with that part of the float which is opposite the hinge farther from the flange than the hinge section itself. The pressure of the gasoline will then be greatest at the extreme end of the float and this will insure a tighter fitting needle valve which will prevent leakage at this point.

11—In making the above tests on a car which has been used, the bowl should be drained and allowed to fill up again, as when an engine is stopped there is always a certain amount of condensation in the intake manifold which finds its way back into the bowl and thus gives an artifically high level.

12—See that the float lever is tight on the float and that the rivets and screws are not loose.

13—See that the float is central about the mixing chamber and that it is not twisted to one side or the other as it might rub on the stem or on the inside of the fuel chamber and any rubbing or contact of this nature would cause erratic action of the float and consequently

the gasoline level would vary considerably.

The Holley Fuel Inlet Valve

The fuel inlet valve consists of a needle with a hard tip and this is lifted by the float as the fuel level rises until, when the level is correct, the tip of the needle enters the hole in the needle seat and so stops flow of gasoline from the tank until the level drops in the bowl.

1—For satisfactory operation, the needle must be true and without burrs or scratches and the seat must also be true so that when the needle touches the seat, a gasoline-tight joint will be made.

2—If either needle or seat are damaged, it is best practice to renew both parts as grinding is uneconomical and is not sure to produce a good job. The only excuse for grinding is lack of new parts.

3—The inlet needle seat is best removed with a special tool shown in Fig. 77, although it can be done with a screwdriver. The use of the tool, however, prevents burring and damaging the outside of the seat and the slot. The seat fits in against a gasoline-proof fiber gasket. If this is torn or damaged during the removal of the seat, it should be replaced also, making sure that all of the old gasket is removed.

4—See that the needle seat is screwed in against the gasket.

5—Owing to the triangular shape of the needle body and the shoulders which guide it, there is a possibility that one of these shoulders might catch in the screwdriver slot in the needle seat when the float drops to the bottom of the empty float chamber. If the float chamber has been drained and floods upon again being filled, the needle can easily be jarred loose by a slight tap with a hammer or wrench on the side of the carbureter body.

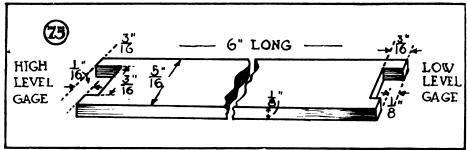


Fig. 75—Gage for testing the correctness of the float level in the Holley

Model G carbureter

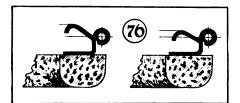


Fig. 76—Setting the float on the Holley. To lower the level, pry up the lever as shown at the left. To raise the level, push the lever down as shown at the right

6—The tightness of the fuel inlet needle may be ascertained by turning the carbureter upside down, allowing the weight of the float to hold the needle on its seat and then sucking lightly on the fuel inlet elbow. If the valve is tight it should stick to the tongue or lips much the same as in the case of a small bottle.

The Spray Nozzle

1—The spray nozzle is held down against a gasket by means of a thread on the lower end which extends down into the stem of the mixing chamber below the hole which admits the gasoline to the inside of the stem. It forms the seat for the needle valve and also embodies a cup into which the low-speed tube extends.

2—See that the nozzle is screwed tight down on its gasket. This is accomplished with a special slotted wrench shown in Fig. 78.

3—Check the size of the hole forming the needle seat. This should be a No. 52 drill, .063 in. diameter. The thickness of the disk through which this passes is 1/16 in.

4—Check the taper in the upper end of the needle seat hole. It should extend to a depth of between 1/64 and 1/32 in., and should be the same angle as the needle point, which is 30 deg. If the hole has been enlarged by screwing the needle in too far, the seat should be thrown out and a new one put in.

5—The needle hole and the four holes through the side walls immediately below the disk which forms the needle seat should be unobstructed.

The Strangling Tube

The strangling tube is a die casting to give depression and mixing action above the spray nozzle and it is held on its seat by a spring wire at the top. 1—To remove the tube, take out the retaining wire and the tube can be lifted right out.

2-The older models had tubes with

an inside diameter of 13/16 in., but the newer models are fitted with tubes of 23/32 in. diameter to more readily mix the lower grades of fuel on the market in the past two years.

3—Much better carbureter action can be secured if the larger tube on the older models is replaced with the new smaller tube. An old tube can easily be identified by checking up the smallest inside diameter of the tube. The difference in carbureter performance will not vary much during hot weather, but there is a decided improvement in cold weather when the smaller tube is used.

The Low Speed Tube

The low speed tube supplies gasoline for idling when the throttle is closed or only very slightly open.

Causes of Carbureter Failure

FLOODING

STARVING

Float too high.
Float gasoline soaked.

Imperfect seating of inlet needle valve.

Dirt in inlet needle valve.

Float too low.

Sediment or obstruction between needle

valve and seat.

Sediment, water or obstruction in bowl, feed pipe or connections.

No gasoline in tank.

(As evidenced by backfiring in carbureter

or stopping)

Needle valve too far closed.

Air leaks around throttle stem.

Air leaks at carbureter flange, or around gaskets between inlet manifold and cylin-

der block.

Hot air pipe out of place or left off.

(Also see causes under "Starving")

RICH MIXTURE

LEAN

MIXTURE

Needle valve too open. Choker valve shut.

(Also see causes under "Flooding")

LEAKING CARBURETER Puncture in bowl.

Parts not screwed together tight.

Imperfect gasket.

Loose feed pipe connection.

VARYING MIXTURE Loose clamp nut on needle valve.

Defective needle valve or fuel nozzle.



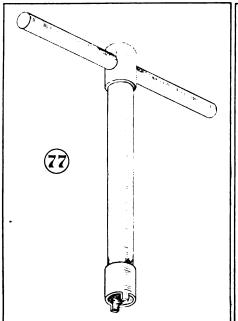
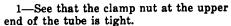


Fig. 77—Special tool for removing and replacing the inlet needle seat on the Holley carbureter



2—See that the screw through the side wall of the mixing chamber to which the upper end of the tube is attached is tight.

3—The plug which fills the hole through which the low-speed tube is inserted must be tight.

4—The lower end of the tube must be tight against the small shoulder at the bottom of the cup in the spray nozzle, thus leaving a clear path for the needle valve to reach its seat.

5—The lower end of the tube is beveled at a 7 deg. angle so that the edge nearest the spray nozzle is higher than the edge against the shoulder in the cup.

6—The lower edge of the tube farthest from the spray nozzle hole must be down to within 1/64 in. of the bottom of the spray nozzle cup.

7.—The tube must not be bent or dented.

8—The lower end of the tube is flattended, making a long narrow opening at the bottom. Be sure that this opening is not plugged up and do not enlarge it or change its shape as the original shape has been developed to give the best operation.

Low-Speed Hole in Mixing Chamber

When the throttle plate is set straight across the carbureter outlet, the edge of the low-speed hole in the mixing chamber should show from .02 to .04 in. outside of the throttle plate as shown in Fig. 79.

Throttle Plate, Rod and Lever

If the throttle rod or the holes in the mixing chamber are worn sufficiently to make a loose fit, a new rod should be installed as looseness at this point will admit air from the outside and interfere

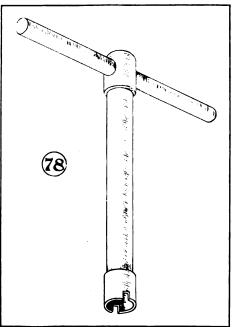


Fig. 78—Slotted tool for removing and replacing the spray nozzle on the Holley carbureter

with satisfactory carbureter operation.

1—If the rod has a perceptable shake in the hole, replace it with an oversize rod, drilling or reaming out the hole in the mixing chamber to make a good fit for the new rod.

2—Standard oversize rods are 17/64 in. and 9/32 in., the original size of the rod being ¼ in.

3—The plate when set squarely across the outlet hole of the mixing chamber should not be less than .006 in. smaller than the hole. If there is more clearance than this the plate should be replaced with a new one that does fit or it should be peened with a hammer around the edges until it fits correctly.

4—When the plate is pinned to the rod, any clearance should be on the side nearest to the low-speed hole.

5—For pinning the plate to the rod, use a No. 55 drill .052 in. dimeter and have the pins fit tightly in the holes.

6—In adjusting the throttle lever for idling, set the clamp screw tight enough to hold the screw so that screwdriver is required to turn it.

Assembling the Mixer Chamber Cap

1—The needle valve must register exactly with the hole in the spray nozzle.

2—To check this up, tighten the clampnut slightly, hold the cap between the jaws of a vise and turn the needle valve. There should be no sideways motion at the point. If the point is not true the needle is bent and it should be either straightened or replaced with a new one.

3—Back the needle valve up several turns before putting the cap in place to prevent possible damage to the point or the seat.

4-Put the cap in place.

5—Attach the cap to the mixing chamber with the three screws, drawing them down equally so that the cap presses evenly on the gasket at all points.

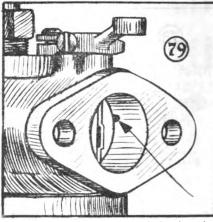


Fig. 79—The low-speed hole should show between .02 and .04 when the throttle is shut on the Holley

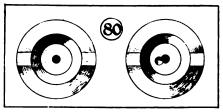


Fig. 80—Result of the needle valve being out of adjustment. The spray nozzle is so damaged that it will have to be replaced and the point of the needle will no doubt have been hooked over

Setting the Kingston Float

Three models of Kingston carbureters have been used on Force as indicated—

1913-1914 Model Y 1915-early 1916 Model L 1916-1918 Model L-2

Each of these has a different float setting:

1—On the Model Y the clearance from the top of the float to the top of the float chamber should be 9/32 in.

2—On the Model L the clearance from the top of the float to the top of the casting should be 9/32 in.

3—On the Model L-2 the body must be turned upside down to check the float level and there should be a clearance of 7/16 in. from the top of the float to the top of the machined surface on the cup casting. In this model the float is hinged directly to the body instead of being pivoted to the cup, as in the two former models.

4—In many other respects the same precautions that are used in overhauling and assembling the Holley carbureter are applicable to the Kingston. The only radical change in construction is the air valve which rests on its seat when the engine is stopped or running slowly. As the speed of the engine increases, this valve rises and permits more air to pass.

5—The gasoline level is at all times above the fuel nozzle so that a tiny pool of gasoline is formed in the lower part of the mixing chamber. When the engine gets up speed, this pool is used up and the gasoline comes directly from the fuel nozzle.

The New

DEARBORN

BW Model, 2-ton Truck, Carries 90 Per Cent of Load on Rear Axle, Permitting Use of Pneumatic Tires on Front.

THE Dearborn model BW 2-ton worm-drive truck is built to carry heavy loads and at the same time serve as a means of rapid delivery. The maker, the Dearborn Truck Co., Chicago, believes that one of the points of superiority in construction is the carrying of 90 per cent of the load on the rear axle. This enables the use of pneumatic tires on the front wheels, thereby protecting the engine from unnecessary shock and jars. Solid tires are used in the rear.

The new model uses a 3% by 5½-in. Buda engine, with combination force and splash lubrication. The bearings, extra large in diameter, are accurately reamed and hand-scraped. A Stromberg special truck type carbureter is used, and fuel is fed by Stewart vacuum system from a 16-gal. gasoline tank. Ignition is by a Bosch magneto, and mounted in unit with the engine is a Borg & Beck clutch and Grant-Lees transmission. An extra large fin type radiator is fitted.

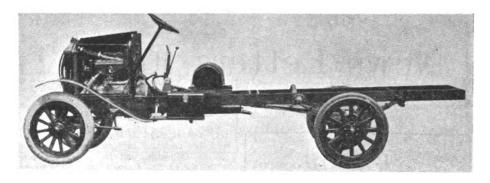
Room for 11-Ft. Body

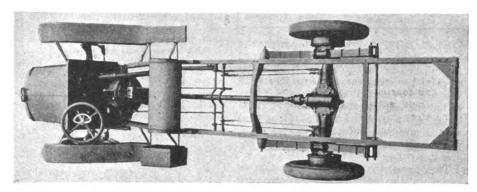
The frame is of 5-in., 6½-lb. channel steel, reinforced by cross members and heavy gusset plates. A loading space of 123½ in. back of the cab, which will take care of an 11-ft. body, is provided. A Torbensen axle is used in front and a Standard of special construction, semifloating and tested at 30 tons, is used in the rear. The wheels are of the artillery type, 32 by 4 in front and 34 by 5 in the rear, the twelve spokes in the rear being 2½ in., as compared to 1½ in. for the front spokes.

Semi-elliptic springs are fitted front and rear. The front springs are 2 in. wide by 31 long, seven leaves with oilless bushings; the rear are 3 by 47 in., eleven leaves with bronze bushings. The wheelbase is 133 in., tread 56 in., chassis weight 3000 lb. Equipment includes two side and one rear oil lamp, toolkit and toolbox on running board. Floorboard and seat are furnished extra. The chassis is finished in red and black.

Truck Train in Wyoming

WASHINGTON, Aug. 9—The Motor Transport Corps transcontinental truck train reached Cheyenne, Wyo., to-day, where it was met by the Governor and his party. The train found the highways chiefly of sand and gravel, well crowned and compact. There were no mechanical troubles.





Side and plan views of the Dearborn chassis

NEW SCHEME TO SELL USED CARS FOR DEALERS

There is a concern which is making a practice of going through the country to a moderately large town, making a quick clean-up of used cars for a dealer in that town, and going on their way to complete a similar deal in another small city.

The Jones-Canen Co., Grand Rapids, Mich., graduated into the automobile business from the musical instrument trade. They are making a practice of arranging with the dealers in cities of the size of Nashville, Tenn., or Savannah, Ga., to bring their sales force into town and by means of an intensive selling campaign extending over two or three days, of cleaning up his stock of used cars. They operate entirely on commission, 10 per cent on all sales accepted. This 10 per cent is added to the price the dealer asks for his cars, and in addition, 2 to 5 per cent is added to cover advertising and incidental expenses.

This concern is interested in cars numbering from ten to twenty, and their method is to employ salesmen, preferably not from the automobile business, but good specialty salesmen or from the musical instrument trade. By a vigorous advertising campaign and strong selling methods the stock is disposed of. In other words, they supply a complete organization and all the dealer has to supply is the cars. The method is not an auction scheme, but is simply applying all of the force and intensiveness of a vigorous sales campaign extending over a short period. The plan seems to have been successful and it has required on an average of less than 36 selling hours to clean up the used car stock of the dealers with whom business has been done up-to-date.

In fact, the sales total reached \$13,410 in Nashville, Tenn.; \$11,455 in Savannah, Ga., and in Jackson, Fla., it required two days; Roanoke, Va., one day; Shreveport, La., \$5,300 the first day. Quincy Ill., required two days and in Dallas, Tex.; Pueblo, Col.; Superior, Wis.; Muskegon, Mich.; Hagerstown, Md., and Macon, Ga., all the stocks were turned into cash in 12 to 24 hr.

One of the stipulations made is that the cars are in good running order.

Truck Drivers Get Free Course in Training

CLEVELAND, Aug. 7—The six weeks' free course offered truck drivers in the school established and conducted by the Grant Truck Sales Co. at its salesroom, 5107 Euclid Avenue, ended last week with a talk on tire troubles by S. V. Norton, truck tire sales manager of the B. F. Goodrich Co., Akron. The instruction was devised to educate the drivers in the care and handling of machines. The concern contemplates starting another free course some time in October or November.

Cleveland to Hold Office Day

CLEVELAND, July 31—Cleveland's sixteenth annual office outing conducted under the auspices of the Cleveland Automobile Club will be held at Euclid Beach Park, Tuesday, Aug. 19. Cleveland dealers and automobile enthusiasts annually combine to give a day's outing to the offices of the city, and this year expect to take care of 4000.

Loyal Trucks Move

ERIE, PA., Aug. 11—The Loyal Motor Truck Co. has moved to 217-218 Marine Bank Building.



News Letters From Trade Centers

ST. LOUIS

Enforces Parking Laws

ST. LOUIS, Aug. 9-Four automobile insurance companies here have declined to underwrite insurance on Ford roadsters and touring cars against theft and fire. Their action was taken because of the steadily increasing thefts of these types of Fords. Ford couplets and sedans are not affected by the ban, which will continue until conditions improve.

Two plans are under consideration to assist in the enforcement of the new ordinance, effective next Saturday, placing a one-hour limit on cars parking in the congested district. One is to have the traffic policemen lock the cars; the other is to put stickers on the tires. If the sticker is clean it indicates that the car has not been moved, and will be considered sufficient evidence of the violation of the law.

Joseph A. Schlecht, president of the Mound City Auto Co., Allen and Auburn distributer, told the St. Louis Storage Battery Trade Association at its meeting last Monday how the St. Louis Automobile Manufacturers' and Dealers' Association introduced the cash for repairs policy, and urged that the battery men adopt a similar policy. Schlecht is a former president of the dealers' association.

R. A. Hillstrom, city sales manager of the Traffic Motor Truck Corp., has added W. J. Gallagher, K. V. Love, and O. R. Karrenbrock to his local sales force.

E. Bennett, a director of the Northwestern Motor, Ltd., Liverpool, England, was in conference with John B. Page, export manager of the corporation this week, and placed an order for trucks to be shipped as soon as possible.

E. W. Bickel is now manager of the St. Louis branch of the Pearings Service Co., which gives service on Hyatt, Timken and New Departure bearings. His territory includes Southern Illinois, Eastern Missouri, Northern Arkansas, Western Kentucky and Western Ten-He formerly was traveling representative of the Indianapolis branch.

Maj. A. J. Smith, formerly of the 35th Division Headquarters, recently returned from France, has been made office manager of the Bartholomew Battery & Supply Co.

George A. Frey, Jr., a returned soldier, has been added to the sales force of the Martin Motor Truck Co., Denby, Diamond T and Fulton distributer.

The Battery Exchange, Inc., has taken the agency for the Philadelphia storage bat-

tery for Eastern Missquri, Southern Illinois and five counties in Kentucky. The branch in the Coliseum will be moved downtown, with George Lee Barrett continuing as man-

Frank L. Canedy has leased, for a term of five years, the office and buildings formerly occupied by the Laclede Gas Light Co., 1128 North Kingshighway, and will conduct a garage and repair business.

The McQuillan-Bradford Motor Coach Co. is the name under which the business of McQuillan, Bradford & Co. has been incorporated. Alex. B. Kilpatrick of the Alex. B. Kilpatrick & Sons Foundry Co. is president; A. C. McQuillan, vice-president, and William T. Bradford, secretary. They took over the body-building business of the Packard-Missouri Motor Car Co. when it was replaced by a branch.

Six Chevrolet dealers have been appointed here as follows: Flint Motor Car Co., Hammond Motor Co., Milburn Motor Mart, Tower Grove Motor Sales Corp., O'Fallon Park Motor Co., Used Car Exchange Co. Frank A. Flint, formerly of the Chevrolet factory at Flint, and H. E. Lueders form the Flint Co.

NEW YORK

Sales Running High

NEW YORK, Aug. 11-Statements of dealers along the row indicate that July sales of cars broke all records for that month. In some salesrooms the month's totals were in excess of any other thirty days in the history of the business.

The trade is now in the midst of an August let-up that bids fair to make the month more nearly normal than any since the unprecedented rush of buying began with the spring season. Shipments from the factories have slowed up and, with a majority of automobile buyers out of town on vacations, there is practically no selling except on the floor. Seeing prospects is decidedly out of order-in fact, many agencies have had almost no call for this work for months.

As an instance of the vigorous demand for cars and of its likelihood to continue indefinitely, Glenn W. Tisdale, of the Franklin agency, stated that he is taking orders for delivery practically up to Jan. 1, and with the understanding that the selling price of the date of delivery will prevail. Tisdale says buyers sign contracts with this provision without the slightest hesitation.

The project of a closed body show in the fall is not meeting with the response that its proponents had hoped. Two reasons operate against the plan, the first a general belief among directors of the Automobile Dealers' Association, which is considering the show plan, that the exhibit would not draw a paying crowd at that time of year, and the second that, with the demand for cars continuing at the top notch, there is no need of a show to stimulate sales. The association, however, has yet to reach a definite decision on the proposal.

The dealers' organization will hold its annual outing in September, going by automobile, it is expected, as in former years, to the farm of Fred Wagner at Smithtown, Long Island.

BOSTON

May Ship Through Canada

BOSTON, Aug. 9-Boston motor dealers are worried now about two matters, the strike which threatens to cut into the delivery of cars from the factories, and the classing of dealers and distributers as chauffeurs. Shipments were beginning to come along regularly from the West with the easing up of strikes. Then came the freight embargo.

Some of the dealers who have cars made in Detroit and other Michigan cities are trying to see if it is possible to ship cars through Canada over the Grand Trunk and Canadian Pacific, both of which run down to Portland, Me. Cars can be driven from Portland to any place in New England.

In the matter of classifying dealers as chauffeurs, some of the dealers have asked John M. Johnson, as representative of the N. A. D. A., to make an inquiry ot the Highway Commission to learn if some compromise cannot be effected so that the dealers will still be able to drive under licenses for operators.

The Highway Commission has no power to change the wording of the law, and any decision that it might make would not be binding on the courts. A test case may be brought in Boston to decide it.

The Triangle Motors Co. has been formed here to take on the Moon line. Salesrooms will be opened shortly at 1100 Boylston Street in a new building.

George B. Cousins, who sold used Franklin cars, and who hired Horticultural Hall during motor show week to run an exhibition for used cars, has resigned from the company.

The McGraw Tire & Rubber Co. has opened a branch here after a lapse of some months.

George B. Jackman, formerly sales manager at the Hudson-Essex agency and later with the Liberty, has resigned to take on a car for himself.

The Harroun car will be represented in Boston sho lv.



PHILADELPHIA

To Stage Exhibit

PHILADELPHIA, Aug. 8—Automobiles, trucks, trailers and automotive equipment will be shown at the "Madein-Philadelphia" Exhibition to be held in the First Regiment Armory, Sept. 8 to 13. Space is already being engaged by manufacturers. The exhibition will be arranged with a circular space in the center and 150 booths constructed around it.

The Larson-Oldsmobile Co., since occupying its new 8-story building at 800 North Broad Street, has installed a complete renovating plant.

R. E. Zane has been appointed branch manager of the United Motors Service in this city. Lee J. Eastman, president of the Packard Motor Car Co. of Philadelphia, and chairman of the roads committee of the Chamber of Commerce, has brought about an alliance with the Atlantic City Chamber of Commerce.

The annual outing and picnic of the Thornton-Fuller Automobile Co., Parkway and Eighteenth Street, distributer of Dodge cars, and the Simplex line, was held at Admore. More than one hundred employees drove to the grounds in 19 cars. L. C. Fuller of the firm was master of ceremonies. A baseball game was a feature of the athletic program.

The Brunswick-Balke-Collender Co., Chicago, has appointed as a distributer in this territory for its solid truck tires the Brunswick Truck Tire Shop, 5 North 21st Street, in charge of A. R. Miller.

H. M. Bacon has been appointed general sales manager of the McGraw Tire & Rubber Co. He was with the Diamond Rubber Co. for eight years.

George Weidner, of the Stewart-Warner Products Service Station, 641-643 North Broad Street, has added to his line of accessories the K. & S. auto gear shift lever lock, made by the K. & S. Auto Heater & Lock Co., Chicago. The Modern Tire Co. has opened for business at 612 North Broad Street.

Contracts for 470.45 miles of various types of highway construction have been let by the State Highway Department since January, at a price of \$1,749,235.54.

Suits growing out of claims for wartime plowing of Pennsylvania farms by tractors operated by the state council of public defense have been begun in Dauphin County Court by the Attorney Genpenal's department, against farmers in Dauphin, Chester, Northampton, Alle-gheny and Montgomery counties. When the war began, the State purchased thirty-five tractors which were made available for use on farms of those contracting for the service and which did not carry any profit for the State. It was stated at the time that the movement was for the purpose of stimulating food production throughout Pennsylvania. The bills were objected to as too high and all efforts at compromise have failed.

Garages continue on the increase, eighty-seven permits covering 94 operations, at a total cost of \$234,145, having been issued during July.

DES MOINES

To Entertain Truck Tour

DES MOINES, Aug. 9—The Motor Trades Bureau of the Des Moines Chamber of Commerce, assisted by the National Highway Marker Association, has started the work of marking all the main roads in Polk county leading into Des Moines. The work will be completed before the opening of the Iowa State Fair on Aug. 20.

Hansen & Tyler, Des Moines branch, this week moved into its new quarters at 1725 Grand Avenue. It will distribute Scripps-Booth cars and give service to Scripps-Booth owners. F. A. Thompson, formerly manager of the Webster City branch, will be manager, and with him are associated E. A. Wells, formerly with the Firetone Tire & Rubber Co., and G. A. Fletcher, formerly with the Oakland Motor Car Co.

The Horton Motor Co. has taken the Des Moines agency for Vim trucks.

The De Brown Auto Sales Co., Des Moines, distributer for Chandler and Cole, has added the Cleveland.

E. G. Biegger, formerly Mitchell dealer at Sioux Falls, S. D., has come to Des Moines and formed the Biegger Motor Co., and will distribute the Mitchell in this territory. Quarters have been taken at 1417 Locust Street.

The Odell-Hamilton Co., Omaha, has opened a Des Moines branch at 1729 Grand Avenue to distribute Mack trucks.

The Motor Sales Co., Des Moines distributer for the Master truck, is planning the erection of a new salesroom.

The Des Moines Motor Car Co has been started by J. H. Stubbins and taken quarters at 611 Cherry Street, and will distribute Davis cars.

The Motor Trades Bureau is making extensive preparations for the entertainment of the National Truck Development Tour when it comes to Des Moines, Aug 12 and 13.

The Peverill Motor Co., Waterloo, Iowa, has taken a building permit for the construction of a salesroom to cost \$45,000. The building will be two stories, of brick and concrete construction, 95 x 115, and will have a one-story annex.

The Corn Belt Motor Co. has been organized at Cedar Rapids to handle Dodge cars in that territory. D. H. Denmead of Marshaltown is president of the new company and E. L. MacGibben, who has been manger of the D. and S. Motor Co., will be secretary and manager. The company will erect a new building on Second Avenue but will have a temporary location at 1207 Fourth Avenue. G. C. Shugart will assume active management of the D. and S. Motor Co. upon Mr. MacGibben's retirement from that company.

NEW ORLEANS

Has Busy Summer

NEW ORLEANS, LA., Aug. 8-Automobile dealers, jobbers and repair men of New Orleans are a unit in declaring that they have had one of the best seasons of their history and are looking forward to record-breaking fall and winter business. At least five of the New Orleans dealers are moving into new and larger quarters, three of them having constructed or purchased their own buildings. Others who have not moved are spending considerable sums in the repair and improvement of their present quarters. Four new sales organizations have been formed and appear to be running on a sound basis.

The introduction of diversified farming in Louisiana and Mississippi has made money more plentiful than ever before among the farmers of these two states and sales of passenger cars have increased accordingly. This same condition has had much to do with increased sales of trucks and tractors.

The Raleigh Motor Co., Inc., has received incorporation papers and has opened headquarters for the distribution of the Ranger products of the Southern Motor Manufacturing Association of Houston, Texas, at 507 St. Charles Street. The new company's territory embraces the Gulf States and Cuba. Oliver Montagnet is president; Frank S. Einstein, vice-president; A. Brugner, secretary, and C. Greco, treasurer. The directors announce they have decided to erect a building for the company in the near future.

The Forschler Truck Company of New Orleans is expanding its business and in doing so has entered on a nation-wide advertising campaign.

Both the Motor League of Louisiana and the Louisiana-Mississippi Automotive Trades Association will have representatives at the Ninth American Good Roads Congress, at Louisville, Ky. A good roads show will be held at this meeting, and the motor league probably will have an exhibit there.

Harry W. Lyle, for fifteen years sales agent for the Eli Lilly Co., manufacturing chemist, has joined the sales department of the Stutz Southern Sales Co. here.

Loyola University opened a school for automobile mechanics Aug. 1, with N. L. Bird as superintendent. The course is ten weeks and the men will be taught to make temporary and permanent repairs, to paint and upholster and to do such temporary electrical work as they might need if unable to reach a service station.

In addition to the Packard and other cars now handled by the Abbott Automobile Co. that organization will soon begin the distribution of the Cleveland in southeastern Louisiana and southern Mississippi.



WILLYS FORMS HUGE **NEW MOTOR COMPANY**

To Build Six-Cylinder Car— All Willys Holdings, Except Overland, Included

TOLEDO, Aug. 10-The Willys Corp., capitalized at \$50,000,000, has been incorporated as a holding company for all of the John N. Willys holdings in concerns not including the Willys-Overland Co. In this connection, the stockholders of the Willys-Overland, Inc., have been called for a special meeting Aug. 14 to consider action upon a proposed contract between the Overland and the Willys Corp. for the manufacture of a new 6cylinder car recently developed by the Willys-Overland Co.

Necessary plants for the manufacture of the Willys Six have been purchased in Elizabeth, N. J. It is stated also that the Willys-Lite plant systems, which had been rumored would be manufactured at Poughkeepsie, N. Y., will be made here.

Clarence A. Earl, vice-president of the Willys-Overland Co., states that his company has perfected a new 6-cylinder automobile but cannot manufacture it owing to limited manufacturing facilities of the Toledo plant. At Elyria, Ohio, a large engine manufacturing unit will be built, 160 acres of land having been purchased as a site for the proposed plant. It will be one of the largest in the world. Just when work will start is not given out. For the present, however, additions will be built to the present Elyria factory to handle the increased production demands of the company.

At the Willys-Overland plant at Toledo, labor conditions are rapidly improving. There are now more than 9000 men on the payroll. During July 7574 automobiles were turned out. The average number of cars completed and made ready for shipment between July 14 and July 31 was 218.

Subsidiary holdings of the Willys-Overland Co. are listed as the Curtiss Aeroplane & Motor Corp.; The Moline Plow Co.; Willys-Overland, Inc., of Toronto, Can.; The New Process Gear Corp., of Syracuse, N. Y.; The Willys-Morrow Co., of Elmira, N. Y.; The Wilson Foundry & Machine Co., of Pontiac, Mich., and the Budd Wheel Corp., of Philadelphia.

Rural Motor Express Committee for N. A. C. C.

NEW YORK, Aug. 9-The possibilities of improving facilities for marketing farm products is being taken into serious consideration by the National Automobile Chamber of Commerce. President Charles Clifton of the Chamber has appointed a committee from the motor truck field to be known as the Rural Motor Express Committee. Through it plans will be devised and propaganda started that should make the entire country a network of rural express routes, thereby materially cutting down costs and getting better prices for the farmer.

The members of this committee are: James L. Geddes (chairman), president of the Kelly-Springfield Motor Truck Co., Springfield, Ohio; G. D. Wilcox, director of sales and advertising of the Commerce Motor Car Co., Detroit; E. A. Williams, Jr., president and general manager of the Garford Motor Truck Co., Lima, Ohio: O. H. Browning, truck sales manager of the International-Harvester Corp., Chicago; A. T. Murray, president and general manager of the Bethlehem Motors Corp., Allentown, Pa., and F. W. Fenn (secretary), N. A. C. C.

That the committee will be called together early for a discussion of the problem before it, is the opinion here. It is possible that they will offer co-operation to the officials at Washington in helping to solve the high cost of living problems, as well as taking the matter up with Governor Cox of Ohio and Attorney General Alex Grossbeck of Michigan in the price reducing campaigns now being waged by those officials.

The committee has abundant information to prove that the truck in rural express service can be a big factor in reducing prices of food.

ENEMY CARS BARRED AT AUTOMOBILE SALON

NEW YORK, Aug. 12-German and Austrian exhibits have been barred from the Automobile Salon, to be held this year at the Hotel Commodore. After denying the application of one German manufacturer for display space, the management announced that no entries would be permitted from enemy countries.

The salon will be held Oct. 16 to 23 -horse show week-and will occupy the entire second floor of the Commodore. Already fourteen makes of cars, seven of them foreign, have been granted space and arrangements are being made for a sizable exhibition of automotive equipment.

SALE OF DORRIS CAR RESUMED IN THE EAST

NEW YORK, Aug. 12-After more than ten years' absence from the eastern field, the Dorris car again is to be marketed in New York, distribution and salesrooms having been opened by the Carlton Motors Corp. at Park Avenue and Fifty-third Street. One of the big 6-80, 7-passenger touring models already has arrived from the factory at St. Louis, and others will follow.

New Overland Four Will Sell for \$845

TOLEDO, OHIO, Aug. 9-Announcement is expected here shortly by the Willys-Overland Co. that the new Overland Four, advance notices of which have been current for some time, will be sold at \$845. The present selling price of the Overland Model 90 is \$585.

SUMMER DEMANDS HIGH FOR CLOSED MODELS

Detroit Dealers Find Big Shortage—Take 40 Per Cent of Sales

DETROIT, Aug. 7-The demand in Detroit for closed cars is unusual. Dealers declare that the closed models are sought by nearly 40 per cent of July purchasers. In the past, the motorist paid scant attention to the closed lines until the fall months but this year has seen thriving sales all summer.

There is a big shortage of closed cars here. Some dealers are unable to promise deliveries before spring. Many have sold their entire year's allotment, while others have contracted for all they can get for the next four months. No one is promising immediate delivery. With colder weather due shortly, the demand is steadily increasing. There is no relief in sight for this acute situation.

Production averages one closed car to four open models. Labor controversies in the various automotive plants have caused a falling off in production which has greatly aggravated conditions.

PENNSYLVANIA SHOWS **GREAT CAR INCREASE**

HARRISBURG, PA., Aug. 9-The tremendous increase in the number of automobiles in Pennsylvania since Aug. 1, 1914, is shown in a statement issued today by the automobile division of the Pennsylvania State Highway Department.

There were over four times as many pneumatic tired vehicles in Pennsylvania Aug. 1 this year as there were Aug. 1, 1914. There were six times as many solid tired vehicles Aug. 1, 1919, as Aug. 1, 1914.

It is estimated that there is one automobile in Pennsylvania for every twenty persons. In 1914 the proportion was one

car to every seventy persons.

Figures for Aug. 1, of the last six years, show the following:

Pneumatic Tire Vehi:les-1914, 95,031; 1915, 135,782; 1916, 192,432; 1917, 277, 081; 1918, 342,367; 1919, 402,797.

Solid Tire Vehicles-1914, 5747; 1915, 7368; 1916, 10,061; 1917, 15,995; 1918, 27,308; 1919, 36,475.

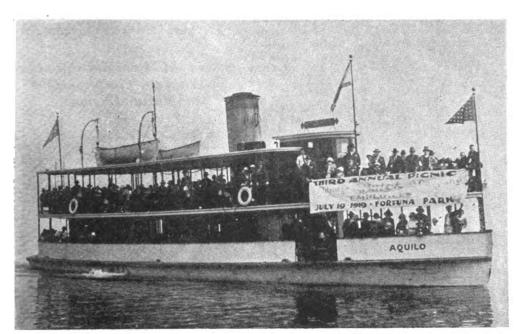
Tractor-1914, 639; 1915, 1069; 1916, 1810; 1917, 1796; 1918, 2224; 1919, 269. Trailer—1914, 146; 1915, 142; 1916, 348; 1917, 698; 1918, 1084; 1919, 1200.

Motorcycle—1914, 13,195; 1915, 15,-878; 1916, 19,276; 1917, 22,230; 1918, 24,036; 1919, 23,021.

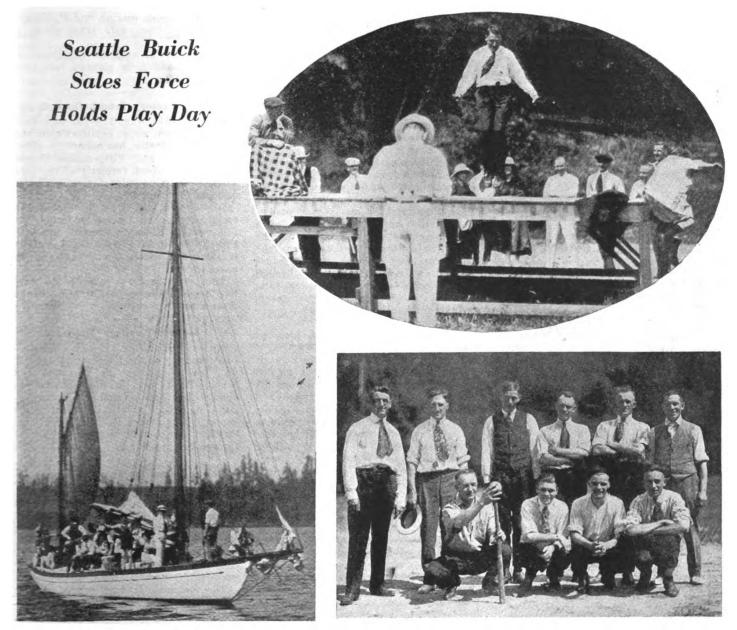
Dealer-1914, 3251; 1915, 4631; 1916, 6373; 1917, 7661; 1918, 7642; 1919, 8786. Tractor Dealer-1916, 44; 1917, 69;

1918, 104; 1919, 179. Total Receipts—1.14, \$1,118,716.50; 1915, \$1,555,924.50; 1916, \$2,154,254; 1917, \$3,065,468.50; 1918, \$3,880,472.50; 1919, \$4,598,350.









EXPEND LARGE SUMS FOR BETTER ROADS

More Than \$350,000,000 Available for Highways— Survey Shows Totals

AKRON, OHIO, Aug. 8—Figures compiled by the B. F. Goodrich Rubber Co. here show that this country is to-day in the midst of its greatest period of highway construction. A total of \$352,216,016 is given as the amount to be expended in maintenance and new construction by the combined forces of the Federal Government and the various states and counties. The survey has just been completed and announced, the figures for each state being as follows:

Alabama	\$1,000,000
Arizona	6,250,000
Arkansas	4,297,398
California	20,000,000
Colorado	4,742,000
Connecticut	8,000,000
Delaware	8,528,000
Florida	8.000,000
Georgia	7,911,000
Idaho	2.100,000
Illinois	6,013,304
Indiana	12,000,000
Iowa	20,498,534
Kansas	8,000,000
Kentucky	3,500,000
Louisiana	2,000,000
Maine	1,630,000
Maryland	6,750,000
Massachusetts	6,000,000
Michigan	15,000.000
Minnesota	11,127,986
Mississippi	7.000,000
Missouri	5,413,079
Montana	6.300,000
Nebraska	2,005,000
Nevada	1,377,499
New Hampshire	1,630,000
New Jersey	6,500,000
New Mexico	4,000,000
New York	2,000,000
North Carolina	5,000,000
North Dakota	1,082,000
Ohio	13,321,500
Oklahoma	3,600 ,000
Oregon	8,000,000
Pennsylvania	8,780,000
Rhode Island	1,470,000
South Carolina	7,000,000
South Dakota	6.767,276
Tennessee	3,650,996
Texas	60,480,000
Utah	10,092,794
Vermont	1,797,650
Virginia	3,400,000
Washington	6,500,000
West Virginia	2,000,000
Wisconsin	3,200,000 6,500,000
Wyoming	0,000,000
•	

\$352,216,016

While the amount available for expenditure this year seems staggering, it will not be enough to make up for deferred war construction, for normally the amount spent on roads in the United States is well above \$250,000,000 and the war restriction brakes applied brought road building almost to a stop in many localities.

Three great factors have been largely

responsible for this year's amazing highway expenditures: First, the incentive for states to match Federal aid appropriations; second, the passage of enormous bond issues for good roads by many states, and third, the attention focused on the urgent need for good roads brought about by the war.

Reports from state highway commissioners to the Goodrich officials show some interesting individual features.

Construction in Virginia during the next six years of 3750 miles of highway at a cost of more than \$60,000,000 has been approved.

Connecticut, Massachusetts, Rhode Island, Vermont, and New Hampshire are closing up short gaps on main highways, which, otherwise, are improved for the entire distance. The same condition has been true in New York, where numerous projects are being linked up with an extensive network of roads already hard surfaced.

One of the features of this year's work will be the construction on the Dixie Highway by states co-operating with each other and with the Federal Government.

In Illinois, the highway will be improved in many spots, one of which is over a distance of 54.5 miles at a cost of \$904,700, the construction being of concrete and macadam. Georgia will be working on the road from Atlanta to Macon, a distance of 72 miles, and a continuation of the Dixie Highway in that state. In Tennessee and Kentucky, projects are under way that will further serve to improve this famous old highway.

Iowa, which spent in the neighborhood of \$15,000,000 during both 1917 and 1918, is spending \$20,498,534 this year. This state has an ideal road building program. When the state system is completed it will be the equivalent not only of a truck line system converging to the cities, but to a trunk line clear across the state from east to west through every county, and north and south through every county as well. Nowhere else has a system been adopted that treats every county alike or that reaches every district impartially.

Texas leads the nation in highway expenditures this year with \$60,480,000 available Texas also led last year. Within her borders. Texas has 126.000 miles of unimproved roads, as against 22.000 miles of improved highway.

Iowa, California, Michigan, Ohio. Indiana and Minnesota rank next to Texas in expenditures for road building in the order named. Thus it will be noted that the agricultural states' appropriations exceed those of other regions by many millions.

A Correction

The new brougham of the Phianna Motors Co., of Long Island City, N. Y., was given as \$3,600 in the July 30 issue of Motor World. This was in error, that amount being the chassis price. The body is additional and will be quoted by the factory or dealers handling the line.

ENGLAND ARRANGES AUTOMOTIVE SHOWS

Series of Exhibits for Cars, Trucks, Tractors and Marine Engines

LONDON, ENG., July 26—In addition to the Olympia Motor Car Exhibition, Nov. 7-16, other automotive shows have been announced as follows:

An exhibition of tractors and agricultural vehicles generally in connection with the tractor trials to be held at Lincoln, Sept. 24-27;

A road transport congress and exhibition is scheduled for London in November. The exhibition will include all vehicles especially adapted for road making and municipal work;

A Scottish motor exhibition will be held in Glasgow, Scotland, early in January;

The North of England Motor Exhibition will be held in Manchester, England, early in February;

A motor boat, marine and stationary engine exhibition will take place in March:

A commercial vehicles exhibition at Olympia, London, is planned for April or May, 1920.

Dort Factory Branch Opened

NEW YORK, Aug. 11—The new Dort factory branch, whose establishment was announced recently, has opened its doors at Broadway and Fifty-eighth Street, with F. L. Sanford, formerly of the New York Studebaker sales force, in charge as general manager.

In addition, the Dort has located a service station with accommodations for 200 cars, at Eleventh Avenue and 54th Street. The F. W. Wright Co., Inc., Dort retailers, will continue business as in the past.

The Dort branch is intended to meet the demands here of foreign clients, dealers and car owners.

Poertner Territory Extended

NEW YORK, Aug. 11—The distribution territory of the Poertner Motor Car Co., which handles the National and Scripps-Booth cars in the metropolitan district, has been extended for the National to include practically all of North Jersey. This makes Poertner's National territory practically identical with that for the Scripps-Booth.

New Name for Peck & Young

FORESTVILLE, CONN., Aug. 11—The Peck & Young Mfg. Co. has changed its name to the Humason Mfg. Co., and its officers are: President, I. D. Russell; vice-president, J. M. Careny and S. M. Stone; secretary and treasurer, L. C. Humason. W. L. Humason, formerly president, is now chairman of the board.

The company is now manufacturing automotive parts and doubling its present capacity.



DETROIT SPEEDS TO NEW TRADE HEIGHTS

Production Ascends as Strikers Become Quiet—City Needs More Factory Space

DETROIT, Aug. 11—Nearly 90 per cent of Detroit business is now normal or above normal. Never were more men employed in the shops and factories or higher wages paid than at present.

The automotive industry is rushing production, while the output of trucks is also climbing. New manufacturing concerns are springing into existence with such rapidity that all available manufacturing space has been utilized and scores of factory heads are unable to find accommodations to house their expanding business.

Building work in Detroit during July broke all previous monthly records in her history when permits for the construction of \$7,000,000 worth of new structures, mostly homes and apartment houses, were issued. There is less labor trouble in the city than one month ago.

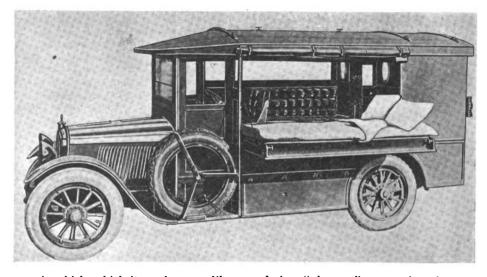
Detroit now is enjoying her greatest prosperity. Bankers have compiled figures showing 87.15 per cent of all business here is flourishing. Of this total, 50 per cent of the companies are doing better business than ever before and 37.15 per cent are doing good normal business. Only 12.85 per cent of business here is below normal and all but 3.09 per cent is climbing to normal again. The figures show 83.07 per cent is improving and 13.84 per cent stationary.

Detroit needs factory buildings almost as much as it needs homes for its workers. The Board of Commerce is urging the erection of several large manufacturing structures in which from 5000 to 10,000 feet of floor space can be provided and which will house several of these smaller concerns.

There is a constant shortage of labor here. Most of the factories are working through the Detroit Employers' Association and the daily demand for skilled workers is for several hundred more than the supply. While this shortage is not interfering with production, it is preventing many concerns from increasing production, inasmuch as it is impossible for the plants to secure workers to man additional shifts which would be placed at work with labor more plentiful.

Labor disturbances have almost entirely vanished from the automotive industry. What trouble there is of this nature in Detroit now is affecting the packing houses, the building trades and the pattern shops. The unionized pattern makers are bringing what they term "economic pressure" to bear on their employers in order to get increased wage scales. Several pattern shops are having their troubles but none of the disputes can be termed a "strike."

The union men get together and pick out the key men in the shop. These



A vehicle which its makers readily concede is a "pleasure" car, rather than a passenger car, is shown above. The machine, a St. Louis product throughout, was built in the Curtis Pneumatic Machinery Co.'s plant for the personal use of the vice-president, G. F. Steedman, and family, who are touring Arizona and the Southwest. The chassis is a Dorris "6-80" with a heavy-duty ambulance type rear axle, otherwise standard as to gear ratio and equipment, fitted with 35 x 5 tires

key men simply quit and take employment in another pattern shop, many of them at less pay than they were getting. This is possible because there are two jobs here for every pattern maker. The employer seeking to fill the vacancy finds that he cannot fill it unless more money is paid. If he hires a man at a \$.15 an hour increase, he is obliged to raise his rates all along the line.

BUICK REDUCES PRICES OF MANY SPARE PARTS

FLINT, Aug. 8—The Buick Motor Car Co. has just reduced the price of spare parts, explaining that this is due to improved manufacturing facilities, the establishing of repair parts stocks among dealers and the purchasing of raw materials in large quantities.

The price reduction on some of the parts range from 15 to 35 per cent. The Buick company manufactures its parts in plants separate from the main automobile plant.

Sells Planes at St. Louis

ST. LOUIS, Aug. 8—The first St. Louis concern to handle airplanes is the Briscoe Motor Sales Co., of which Frank Bishop is president, which has obtained the agency to sell Curtiss-Canadian type airplanes in this district. The machines will sell for \$3,250 each delivered, one sale having been made before the arrival of the demonstration craft. Demonstrations will be made, but a charge of \$25 will be made unless a sale results, this rule being to discourage joy riders.

Allentown Fair to Wind Up with Car Races

ALLENTOWN, PA., Aug. 7—The Allentown Fair, to be held Sept. 22-27, will finish up with automobile races on the last day, Sept. 27.

MISSOURI TO HOLD SHIP-BY-TRUCK DAY

ST. LOUIS, Aug. 11—To encourage the use of the motor truck as a means of short-haul transportation, a ship-by-truck expedition is being organized to Sedalia, Mo., 220 miles. The movement is under the auspices of the Commercial Car Bureau of the St. Louis Automobile Manufacturers' and Dealers' Association and the St. Louis Chamber of Commerce.

The truck train will leave St. Louis early the morning of Aug. 13, and will arrive in Sedalia, where the Missouri State Fair is being held, on Aug. 15.

Capt. Robert E. Lee, under whose direction the tour of the St. Louis dealers was made in June, will be in charge of the expedition. Carl J. Baer, manager of the Farm Production Bureau of the Chamber of Commerce, is in charge of the recruiting of trucks from the business houses of St. Louis. In this he is assisted by R. S. Rauschkolb, manager of the ship-by-truck bureau of the Firestone Tire & Rubber Co. It is expected that 150 trucks will participate.

Automobile Sales Corp. Names New Directors

PHILADELPHIA, Aug. 7-Five executive officials of the Automobile Sales Corp., who have been with the company a number of years, have just been rewarded with directorships. The new directors are: N. S. Jorgenson, who has been Reading branch manager for the past three years; J. B. Dickson and E. C. Field, who have been with the company since its organization in 1903, Mr. Dickson superintendent since 1912, and Mr. Field auditor; B. S. Neel, director, and Ralph Cook, general manager. In addition to these the old directors are: Percy L. Neel, president and chairman of the board; W. J. Neel, J. R. McAllister and E. Spencer Miller.



CAR PRODUCTION SHORT OF DEMAND

Even with Doubled Facilities Makers Are Not Likely to Catch Up for Years

DETROIT, Aug. 8-Automobile manufacturers here believe the shortage of automobiles will continue for at least three years. Even if production in most of the plants is doubled next year, it will fall far short of the demand. With all of the General Motors Corp. passenger car units preparing exceptionally heavy production schedules for 1920, with Maxwell-Chalmers, Hudson, Liberty, King and other firms building new manufacturing plants permitting them to double their facilities, 1920 will see the greatest output of automobiles in its history. Even this increased output, however, is certain to fall several hundred thousand cars short.

In 1918, according to the National Automobile Chamber of Commerce, 1,044,754 passenger cars were made. In 1917 the production totaled 1,737,151 cars. In 1916 the factories turned out 1,493,617 machines. In compiling the above figures, Ford production is not included. They reveal a normal annual production increase of 40 per cent. War restrictions made 1918 production sub-normal. Had normal conditions prevailed the 1918 output would have totaled 2,750,000 or twice what it actually was.

Thus January, 1919, saw a shortage of 700,000 cars, which grew to nearly 1,000,000 in June.

It is estimated that the average life of an automobile is 5 years. Basing an average upon the production figures for the last five years it is safe to figure that 1,500,000 automobiles are scrapped annually. Thus 1919 opened with an estimated shortage of 2,200,000 cars and this shortage may possibly reach the 2,500,000 mark. By ushing production during the next six months, the factories may produce a grand total of 1,500,000 cars.

Export business is just as heavy as domestic business. The demand for cars from abroad is greatest in the industry's

history. Although many machines are now being shipped abroad, they are few compared with domestic production. The companies have all adopted the policy of caring for home demands first, and masmuch as the home demands are so great at present, they are shipping just enough overseas to keep their foreign sales organizations alive.

PACKARD MAKES MERRY OVER BIG JULY SALES

NEW YORK, Aug. 9—The Packard sales organization celebrated its July trade record here this week by an outing at the Travers Island home of the New York Athletic Club. The attendance was 184, including workers from the thirteen branches of the New York company—the Packard Motor Car Company of New York—as well as executives from the factory and the Philadelphia branch. The July record, the highest month of the company's business, was announced as having been the sales of 235 trucks and 197 passenger cars. Swimming, baseball, boxing and other events featured the day.

The outing was a result of the contest for July between the truck and car salesmen, the former being the winners. The company also announced that it has organized a Master Salesman's Club, to which members are elected once a year. Election to the club carries an award of Packard common stock of a value of \$500.

DES MOINES MOTOR TRADES STAGE FROLIC

DES MOINES, IOWA, Aug. 11—Des Moines Motor Trades knocked off from work Aug. 5 and put on the first annual frolic of the Des Moines Motor Trades Bureau at Union Park. All members of the bureau agreed to close their business at 1 o'clock.

The program arranged contained sixteen athletic events with prizes for each and a baseball game between the truck and car dealers against the rest of the motor trades. A basket dinner was served at 6 o'clock, and there was dancing in the evening.

FORD WILL ASSEMBLE CARS ON CONTINENT

Plants Will Be Located at Cadiz, Spain, and Copenhagen, Denmark

NEW YORK, Aug. 9—The Ford Motor Co., planning an extensive foreign business with the resumption of normal commerce conditions following the war, has work well under way for location of assembling plants at Copenhagen, Denmark, and Cadiz, Spain.

Machinery already is on the ground for the Copenhagen plant, which will have an initial capacity of twenty-five cars a day, and 700 "knocked down" machines are en route for the commencement of active operations. J. J. Harrington, former Ford manager in Boston, sailed recently to assume charge in the Danish capital.

Equipment for the Cadiz plant, also to turn out twenty-five cars daily, is on the way, and the Ford export officials will announce shortly the manager of operations in Spain.

It was stated at Ford headquarters here to-day that development of the foreign field was being pushed with vigor, and that demands for cars from all parts of the world were giving it a steady impetus. The British Ford interests are being rapidly reorganized after the war period under the direction of W. C. Anderson, former St. Louis manager, with Sir Percival Perry, former British director, in charge of Fordson tractor production in the United Kingdom.

Airplane Co. of Iowa Formed

DES MOINES, IOWA, Aug. 11—The Airplane Co. of Iowa, recently formed here, is capitalized at \$50,000 and will sell planes and conduct passenger service over the state. Four Packard planes have been purchased and three army aviators engaged as pilots. Officers of the company are George Kuhns, president; Maj. W. J. Bardollar, vice-president; B. F. Kaufman, secretary, and F. W. Hubbell, treasurer.



The New York Packard salesmen halted their play for a few minutes during their annual outing at Travers Island

HUDSON PUTTING UP PLANT FOR ESSEX

Plans Double Production in 1920—Building and Equipment to Cost \$2,250,000

DETROIT, Aug. 8—The Hudson Motor Car Co. is about to spend \$2,250,000 to build a plant for the manufacture of Essex cars. Of this sum, \$1,250,000 will be invested in land and new buildings, and \$1,000,000 in machinery and special equipment. Work on the new plant has commenced. The Hudson company proposes to double its output during the coming year. It will produce 70,000 cars of both makes in 1920. This year's schedule called for 40,000 machines, 20,000 Hudson and 20,000 Essex.

Both cars are at present being made in the Hudson plant, but when the new factory is complete and running this October, it will handle all of the operations going into Essex manufacture with the exception of the machine and engine testing departments.

The new Essex assembly plant will be 340 x 400 ft., with 136,000 sq. ft. of floor space, of steel and concrete, one story high. This building will house the domestic and export shipping as well as assembly.

The receiving rooms, offices, and stock inspection departments will be installed in a brick building which was built last year for war purposes. This structure has 24,000 ft. of floor space.

NAME NEW HEADS FOR ALL-AMERICAN

CHICAGO, Aug. 11—Paul Klein-exel was elected president and general manager of the All-American Truck Co. at a recent directors' meeting, replacing R. H. Spear, resigned. Otto Bruenauer was made vice-president in charge of sales and engineering, and R. J. Sutton, vice-president in charge of manufacturing.

Klein-exel was founder and organizer of the All-American company, and during its development to its present position

acted as chairman of the board of directors.

Bruenauer, who also replaces Spear on the board of directors, has had wide experience in the engineering and sales end of the automotive industry for a great many years, having but recently resigned from the U. S. Ball Bearing Co. following changes of personnel of that organization attendant upon the death of W. H. Strom.

In preparation for the occupancy of the new factory now under construction, and in consequence of the increase in production made possible thereby, E. A. Paepper, chief engineer for the Mercedes some years ago and later with Mercer and Republic, becomes chief engineer of the All-American.

H. H. Howe, formerly with the Maxwell organization, becomes the active head of the sales department immediately under Mr. Bruenauer, with the title of sales manager.

W. Maun, formerly with Republic, has also been brought to Chicago in the capacity of purchasing agent.

The increase in sales for the All-American truck not only has made necessary the construction of the new factory but in addition a very material increase of both the inside and field force of salesmen is now in progress The country is being divided into zones in charge of direct factory representatives, who in turn are installing their own separate organization down even to the employment of dealers in the smaller towns.

New Company Represents U. & J. Spark Plug

WASHINGTON, Aug. 6—A new company, with John L. Newbold, president; E. H. Hollis, vice-president and general manager, and Charles B. Buck, secretary and treasurer, has been formed to represent the U. & J. spark plug in the District of Columbia, Virginia, West Virginia, Maryland and Delaware.

Tractors to Hawaii

HILO, HAWAII, July 29—As a large sugar producing country, the Hawaiian Islands offer great possibilities for tractors. According to a report from a local concern, 20 to 40 hp. creeper type machines are needed immediately.

ARMY WILL RETAIN 10 TYPES OF VEHICLES

Motor Transport Corps Announces Types to Be Maintained by Army

WASHINGTON, Aug. 8—Brigadier General Drake, Motor Transport Corps, announces that the following types of trucks and passenger automobiles will be retained by the army for its use:

Type 1—Passenger cars: Medium, open, Dodge; medium, closed, Dodge; heavy, open, Cadillac; heavy, closed, Cadillac.

Type 2—Light delivery truck: ½-ton light delivery, Dodge; ¾-ton, White; ¾-ton G. M. C.; 1-ton, White, Tebo.

Type 3-1½ and 2-ton trucks: White, Garford, Packard.

Type 4-3 and 4-ton trucks: Standardized "B"; Riker, Mack, 3½-ton trucks; F. W. D.

Type 5-5-ton trucks, or over: Mack, 5½-ton trucks; Mack, Special Engineer.
Type 6-Motorcycles: Harley-David-

Type 7—Ambulances: G. M. C. Type 8—Trailers, cargo: Trailers, %4-ton, tank, water, 180 gallons; trailers, %4-ton, ration and spare parts; trailer, 1½-ton, 2-wheel, light aviation; trailers, 1½-ton, 4-wheel, cargo; trailers, 1½-ton, gun and caisson; trailers, 4-ton, 4-wheel, cargo; trailers, 4-ton, 4-wheel, cargo; trailers, 4-ton, 4-wheel, cargo; trailers, 5-ton, tire press; trailers, 10-ton, portable crane; trailers, 10-ton, tank corps with ramp.

Type 9—Trailers, kitchen: Trailers, 1½-ton, 2-wheel, kitchen, A and B types.
Type 10—Trailers, machine shop:
Trailers, 4-ton, 4-wheel, machine shop, spare parts.

Bicycles—Westfield.

None of these machines will be placed in the surplus equipment.

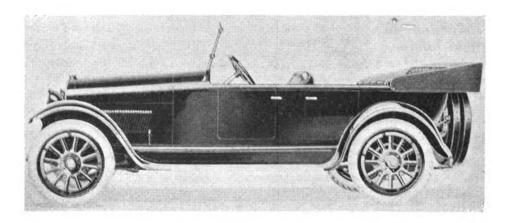
Randall Advertising Moves

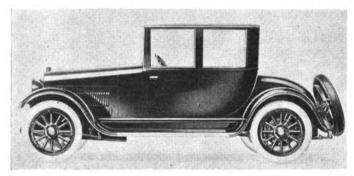
DETROIT, Aug. 8—The Fred M. Randall Co., a member of the American Association of Advertising Agencies, moved its general offices from the Ford Building to the Book Building.

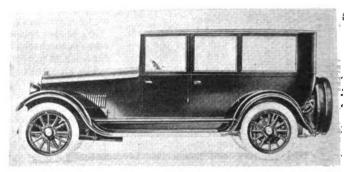


to pose for this picture. Some of the bunch, which numbered 184, are shown in the day's festivities on page 16

And Here Is Another New One—The Case V







While the details of the new models do not differ radically from the Model U which the Model V replaces, yet there are refinements and design improvements which add to the mechanical perfection and beauty of the cars. The Sport model shown at the top is \$2,200, the seven-passenger touring (not shown) the same price, the Sedan \$3,000 and the Coupe \$2,850. The six-cylinder engine is a Continental, the bore and stroke remaining the same as in the previous model, $3\frac{1}{2}$ x $5\frac{1}{4}$ in. The wheelbase has been increased from 125 to 126 in.

TRUCK TOUR PROVES RURAL SALES FIELD

National Development Run Shows Farm Interest— Possibilities Larger

CEDAR RAPIDS, IOWA, Aug. 11 (Special Telegram)—After completing the first week of its eight weeks' trip through the Northwest, the National Motor Truck Development Tour has demonstrated that a road test of this kind is the best way to acquaint the farmer with the possibilities of the pneumatic tired truck.

It has held to its running schedule despite the heavy roads encountered in western Illinois. Some demonstration hauling was done at Elgin, the first night's stop. A crowd of fifteen hundred people greeted the convoy at Belvidere, many of these being farmers and dairymen from the surrounding country. A lecture on the motorized farm was delivered which completed the program, and the truck train moved on to Rockford.

The trip from Rockford to Freeport was rough going, due to a four-hour rainstorm, but the convoy arrived on time. Here the official lecturer ad-

dressed a crowd of two thousand persons from the courthouse steps. The number of farmers present proved that they are genuinely interested in their transportation problems and that they are willing to be shown how to overcome some of their difficulties.

At Lena for. of the trucks staged a demonstration by hauling sheafed oats from the field to the thresher. The field was still soft from the recent rains and the trucks got away with it in fine style. An excellent impression was made on the farmers present that means truck sales in that location if the dealers get busy.

Traveling with the convoy in Iowa, one is impressed with the number of trucks that already are in service on the dairy farms. Most of these are equipped with solid tires, but it will not take long for these owners to learn that the pneumatic tire is better suited to their purpose, as it makes possible higher speed on the fine gravel roads in this part of eastern Iowa.

Unusual interest was displayed all the way from Dubuque to Cedar Rapids.

Service Managers Organize

NEW YORK, Aug. 11—The newly formed Automotive Association of New York, composed of service managers, for the purpose of co-operating between the

industry and owners, with headquarters at the National Automobile Chamber of Commerce, elected the following officers to hold office until the annual election in January:

R. C. Rognon, Vim Motor Truck Co., president; J. W. Watt, Reo Motor Co., vice-president; J. Howard Pile, Motor World, secretary; E. V. Dorks, Buick Motor Co., treasurer. The board of directors includes: E. Hunn, Jr., Packard Motor Car Co.; J. E. Lange, General Motors Corp.; J. M. Grant, White Motor Co.; F W. Lowe, Ford Motor Co.; H. M. Holt, Willys-Overland Co., and Al Rawson, Reo Motor Co.

Call Meeting of Accessory Makers

NEW YORK, Aug 9-The annual credit managers' convention of the Motor and Accessory Manufacturers' Association has been set for Sept. 11 and 12, at the Hotel Lafayette, Buffalo, N. Y. That announcement was made to-day by M. L. Heminway, general manager of the association, who has in charge the arrangements for the meeting. It is planned to make the two-day conference almost national in scope and, in view of the subjects to be discussed, is expected to draw attendance from all of the membership, despite the fact that the annual national convention will not be held until the winter.

CHANGES In the Trade

- A. C. Merril has been made manager of the Boston branch of the United Motors Service, Inc., Detroit. Previously he was assistant supervisor of production of Plant No. 3 of the E. I. du Pont de Nemours & Co.
- C. M. French, for many years with the Portage Rubber Co., has been appointed credit manager of the Owen Tire & Rubber Co., Bedford, O.

William L. Krapp, general sales manager of the Turnbull Motor Truck & Wagon Co., Defiance, O., has resigned. The sales department is temporarily in charge of B. H. Smith, Indianapolis, Ind., one of its factory representatives. No one has yet been named for the position.

Arthur B. Reynders has been made works manager of the East Springfield plant of the Westinghouse Electric & Mfg. Co. He has been with the company since 1899 and since 1912 has been director of production. A. E. Kaiser, who has been Reynders' assistant since 1912, has been appointed to succeed him as director of production.

F. J. Beams, who was former district representative for the Barry Manufacturing Co., Indianapolis, has been appointed sales manager for the Field Manufacturing Co., with headquarters at Owosso. Mich.

A. L. Ditter, who was formerly sales manager for the Field Mfg. Co., Owosso, Mich., has been promoted to general sales manager.

William P. Anderson has been appointed assistant general manager of the Olds Motor Works, Lansing. He comes from the Wright-Martin Aircraft Corp., New Brunswick, N. J., where he was general factory manager.

A. E. Wilkins, who resigned as general superintendent of the Ann Arbor Machine Co., Ann Arbor, Mich., has gone with the engineering department of the Reo Motor Car Co.

W. T. Francis has been appointed branch manager of the Bearings Service Co., Detroit, in its Atlanta branch. He will succeed N. J. Fitch, resigned. Previous to his appointment to the Atlanta branch he was traveling representative in the Boston territory of the Bearings Service Co.

- F. G. Adams has been appointed manager of the Cleveland branch of the United Motors Service, Inc., Detroit. Previous to this connection he was instructor at the Liberty Engine School of the Bureau of Aircraft Production of the U. S. army.
- E. W. Bickel has been appointed manager of the St. Louis branch of the Bearings Service Co., Detroit. He was formerly traveling representative for the company in the Indianapolis territory.
- W. J. O'Brien has been made manager of the Cleveland branch of the Ohio Savold Tire Co., opened at 1607 Euclid Avenue.
- E. R. Gardner, who has been sales manager of the truck department of the Velle Motors Corp. for the last two years, has been appointed sales manager of both truck and passenger car departments.

Charles R. Gardner, sales manager of the passenger car department of the Velie Motors Corp. for the last two years, has resigned to become general manager of the Sccurity Motor Co. of Omaha, Velie distributer for Omaha and vicinity.

George W. Daum has been elected assistant general manager to Seneca G. Lewis, vice-president and general manager of the Pennsylvania Rubber Co. H. Wilfred Du-Puy, president and treasurer, has relinquished his position of treasurer to A. H. Price

Daniel A. O'Connor of Washington has been taken into the partnership of the Southern Automobile Supply Co., Inc., of which J. D. O'Connor is president and William E, O'Connor secretary and treasurer. Mr. Daniel O'Connor will be connected with the sales department of the business.

Leo Burnett, advertising manager of the Cadillac Motor Car Co., Detroit, has resigned to join D. McCall White, who is designing a car for manufacture.

- N. W. Meyer is now sales manager of the Neville Steering Wheel Co., Detroit. He was formerly with the Bradfield Co., which handles the advertising of the Neville Co.
- R. C. Getsinger, former sales manager of the Saxon Motor Car Corp., Detroit, has been appointed sales manager of the Lincoln Motor Car Co.

Bert Lusk, for many years in the truck specification department of the Packard Motor Car Co., has gone to Pit'sburgh, where he will be connected with the truck depart-

ment of the Packard Motor Car Co., Pitts-burgh.

Walter S. Jacob is the new distribution manager of the Bearing Service Co., Detroit. He will have charge of service sales and will direct both sales and advertising departments. He has just returned from the army, where he was a lieutenant in the Ordnance Department.

Earl L. Vosier, for two years manager of the Fruehauf Trailer Co., has been named secretary of that company.

Frank Turner, comptroller of the Buick Motor Co., has been transferred to Detroit as comptroller of the General Motors Corp.

Frank S. Callender, formerly with the Studebaker Corp., has been made sales manager of the Modern Pattern & Machine Co., Detroit.

J. K. Dalton has been appointed sales manager of the World-Old Products Co. of New York, which markets the OPCO carbon remover.

Don S. DeVor, connected with the Olds Motor Works since 1911, has resigned to become works manager for a new passenger car concern now being organized in Elizabeth, N. J.

Arthur J. Haynes, former sales manager of the Ford Motor Co., of London, Ont., has resigned to go to Windsor, where he becomes sales manager of the Champion Spark Plug Co. of Canada.

C. H. Walker has been appointed branch manager of the Pacific Coast branch of the Wire Wheel Corp. of America, with offices at San Francisco. Walker has been for several years district manager of the branch at Detroit of the Splitdorf Electrical Co.

Glen Buck of Chicago has been appointed advertising manager of the Rubber Products Co. of Barberton, O.

Lieut, J. Lowcher has been named head of the accounting department of the Eisemann Magneto Co. He recently has been discharged at Camp Upton. Lowcher formerly was traveling auditor for the American Smelting & Refining Co.

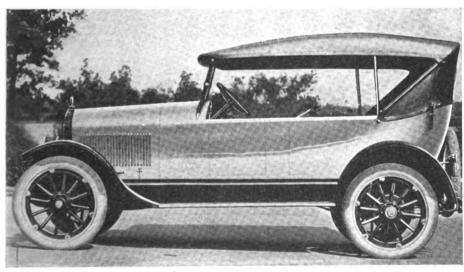
- J. H. Jackson, formerly production engineer for the Sharples Separator Co., West Chester, Pa., and recently discharged from army service as lieutenant, has been made sales manager of the Pittsburgh Gear & Machine Co., Pittsburgh, Pa., succeeding W. H. Thompson.
- J. A. Massie, for several years sales manager of the Hoyt Electrical Instrument Works. Penacook, N. H., has retired from active service with the company, but will retain his interest in the Burton-Rogers Co., which has been made the sales department for the concern, with M. T. Rogers taking over Mr. Massie's duties. Mr. Massie plans to rest for some time.

Automotive Dignity

(Continued from page 26)

If it can't be sold on its merit don't start making it. If in doubt as to a name consult an advertising specialist. Ask a man who knows. The poorest person in the world to name a product generally is the man who invents or first makes it.

The same applies to companies, even small dealer companies. Give them good names, names that your banker can read without smiling, and names that are descriptive of the proprietor and his business. "Limelighters" of varying breeds will add enough of the burlesque—let the men in the industry add the dignity.



A number of minor refinements are incorporated in the Crow-Elkhart six.

These include a bevel-edge body, wide doors, new ventilating windshield and natural wood instrument board. Option is given on nine different color finishes

COMING EVENTS

D C 1 m	Suningfuld Many Park 17-06
Races, Contests and Tours Elgin, Ill	Springfield, MassSept. 15-20Eastern States Exposition. J O. Simpson, General Man ager.
Jniontown, Pa	Detroit, MichOct. 6-11Closed Cars: Detroit Dealers
Mentown, PaSept. 27Dirt track event.	Ft. Dodge, IaOctoberFall Motor Show, Distric
Frenton, N. JOct. 4Dirt track event. Cincinnati, OOct. 11Speedway. Danbury, ConnOct. 11Dirt track event.	Chicago, Ill
Meetings	New York, N. YJan. 3-10Grand Central Palace, Na tional Automobile Cham ber of Commerce, S. A
Buffalo, N. YSept. 11-12Annual_Credit Manufactur-	Miles, Manager. Chicago, IllJan. 24-31Coliseum, Cars: Drexel Pa
ers Convention, Motor & Accessory Mrs. Assn.,	vilion; Trucks, Nation; Automobile Chamber (Commerce, S. A. Mile
Philadelphia PaSept. 22-24. Annual Convention, National Association of Purchasing Agents, Bellevue-Stratford. Denver, ColOct. 1Directors Meeting, National	Manager. Kansas Citv, MoFebruaryFifth Annual, Kansas Citvanta Tractor Club, Guy H. Ha
Automobile Theolege' Agen	Wichita, KanFeb. 9-1Tractor and Farm Machin
ackson, MissOct. 9-10Second Annual Convention, Louisiana-Mississippi Assn. Louisiana-Mississippi Assn.	ery, Forum, Wichit Thresher-Tractor Club.
Atlantic City, N. JOct. 14-17Twenty-fifth Annual Convention, Marlborough - Blenheim, National Hardware Association of the United	Automotive Shows at Fairs
Chicago, Ill	Toledo, OAug. 19-22Lucas County Fair. H. I
Temple. London, EngNovemberRoad _Transport Congress	Marks, Mgr. Des Moines, IaAug. 20-29Machinery Hall.
ouisville, KyFeb. 9-13Seventeenth Annual Convention American Road Build-	Columbus, OAug. 26-29Cars and Tractors. E.
ers' Assn.: Tenth American Good Roads Congress and Eleventh National Good	Rockford, Ill
Roads Show. San Francisco, CalMay 15-20Seventh Annual Foreign Trade Convention.	Wheeling, W. VaSept. 1-5Connecticut Fair Assn. Hartford, ConnSept. 1-5Connecticut Fair Assn.
Foreign Shows	Rochester, N. YSept. 1-6Automobile Club of Rochester. E. F. Edwards, Marager.
Paris, FranceOct. 15Grand Palais — International Automobile Manufacturers'	Indianapolis, IndSept. 1-6Nineteenth Annual in connection with Indiana State
Congress. Olympia Exhibition, Society of Motor Manufacturers &	Spokane, WashSept. 1-6Cars, Trucks and Tractors. Milwaukee, WisSept. 8-13Milwaukee Automobile Dea ers, Inc. Bart J. Ruddl
Trades. Christchurch, N. ZNovemberFirst National Motor. Scottish Motor Exhibition. Scottish Motor Exhibition. Manchester, EngFebruaryNorth of England Motor Ex-	Manager. Topeka, KanSept. 8-13Cars, Trucks and Tractor Motor Hall and Machiner Field.
hibition. ondon, EngMarchMotor Boat, Marine and Sta-	Huron, S. DSept. 8-13Cars, Trucks, Tractors, Automotive Equipment. C. N
ondon, EngApril or MayCommercial Vehicles Exhibition.	McIlvaine, Mgr. Helena, MontSept. 8-13Cars, Trucks and Tractors. Syracuse, N. YSept. 8-13Cars, Trucks and Tractors.
Tractor Demonstrations	Douglas, Wyo
Aberdeen, S. DAug. 19-21Regional Tractor Demon-	Sioux City, IaSept. 14-20Cars, Trucks and Tractors.
stration under the auspices of the National Implement	Yakima, WashSept. 15-20Cars, Trucks and Tractors. Springfield, MassSept. 15-20Cars, Trucks and Tractor O. A. Nash, Asst. Ger Manager.
& Vehicle Assn. State Demonstration under auspices of State College, manufacturers and distrib-	Billings, MontSept. 16-19Cars, Trucks and Tractors. Memphis, TennSept. 20-27Cars, Trucks and Tractors. Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors. J. S. Malone, General Man
uters. os Angeles, CalSeptemberRegional Tractor Demon- stration under the auspices	ager. Pueblo, ColSept. 22-27Cars, Trucks and Tractor
of the National Implement & Vehicle Assn. itreator, Ill	J. L. Beaman, Manager. Salem, OreSept. 22-27Cars, Trucks and Tractor Dealers' Motor Car Assn M. O. Wilking More
Truck Assn. W. S. Peter- man, Manager.	M. O. Wilkins, Mgr. Allentown. PaSept. 22-27Lehigh County Agricultur
ondon, Eng	Assn. Waterloo, IowaSept. 22-28Automobile show. in connection with Waterloo Dair Cattle Congress; Blac
ery. Experimental and Booth Farms, Inter-Pro- vincial Plowing Match and Tractor Demonstration.	Hawk County Motor Trade Bureau, G. V. Orr, Secre tary.
Shows	Kansas City. KanSept. 24-Oct. 4. Cars, Trucks and Tractors. Muskogee, OklaSept. 29-Oct. 4. Cars, Trucks and Tractors.
Coronto, CanAug. 23-Oct. 6. Cars. Trucks and Tractors. Airplanes and Motor Boats	Meridian, MissSept. 29-Oct. 4Cars and Tractors. A. F. George, General Manager. Chattanooga. TennSept. 29-Oct. 4Chattanooga. Auto Dealer
in conjunction with Canadian National Exhibition. dian National Exhibition. Aug. 30-Sept. 6.State Fair.	Assn. Brockton, MassSept. 30-Oct. 3Cars.
ndianapolis, IndSept. 1-6State Fair. Cars and Access- sories. Indianapolis Auto- mobile Trade Assn., John	Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Dea ers' Assn.
B. Orman. Manager. Freenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett.	Northampton, MassOct. 1, 2, 3Three-County Fair. S. 1 Hickman, Mgr. Dallas, TexOct. 6-19Cars, Trucks and Tractor Texas State Fair.
General Manager. Incinnati, OSept. 13-20Ninth Annual, Music Hall, Cincinnati Automobile	Raleigh, N. COct. 20-25Cars, Trucks and Tractors. Shreveport LaOct. 22-27Cars, Trucks and Tractors. Jacksonville, FlaNov. 22-29Florida State Fair and E.
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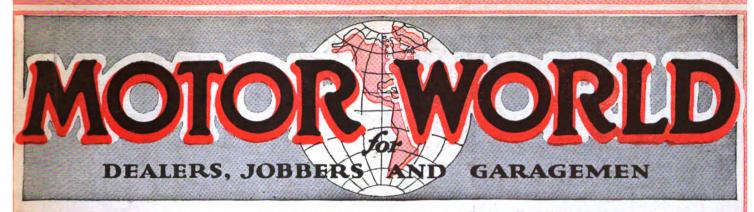
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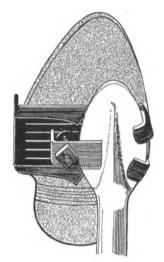
Fifteen cents a copy Three dollars a year





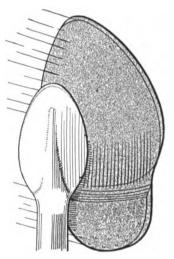
Look at the Difference Between These Two Pedals





This Driver's Foot Cannot Slip

A Slip Like This Might Wreck This Driver's Car



and You Will Know at Once Why Owners Buy

UTILITY



PEDALS

For Fords

There are only a few of the more than 2 million drivers of Ford cars who are basically reckless, and none out looking for an accident. Most Ford Owners—thousands, even millions of them—take every precaution for safety. Owners call UTILITY pedals "The Absolutely necessary accessory for Fords." The growing demand for them reflects the growing realization on the part of Ford owners that the key to safety in driving any Ford car is a firm, positive grip on the pedals. UTILITY pedals—rubber shod—are absolutely slip-proof. Besides, they are wide enough to hold the driver's whole foot—with a flange for extra protection against slipping, at the side. Making big sales and generous profits for dealers every day. The more you sell, the more you need to sell.

DEALERS: Order from your jobber.

JOBBERS: Get in touch with us.

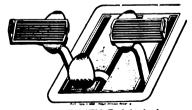
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Mfrs. of UTILITY Protected Heaters, UTILITY Pedals for Fords, UTILITY Pumps, UTILITY Disappearing Truck Bodies for Fords, UTILITY Universal Rim Wrenches and UTILITY Universal Wrenches.

Archer Avenue and Canal Street

CHICAGO

Sales Department: THE ZINKE CO., 1323 S. Michigan Ave., Chicago



How UTILITY Pedals look from the front seat of a Ford.

Only \$1.25 per Set





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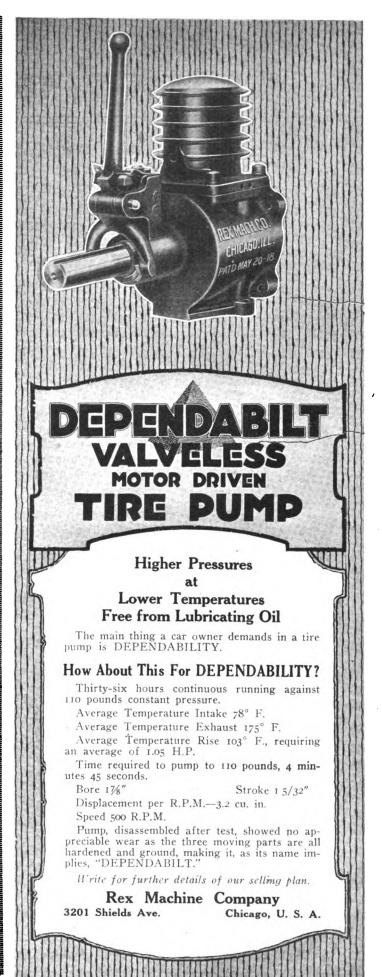
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To Motor Car Merchants

There IS a Best Method By Which to Finance Your Motor Cars

OF course I claim my method is the best—Each competitor will say that I am wrong and that his method is best for you—But you endanger your business and lose profits unless you analyze and discover which method best meets your individual requirements.

Scientific Merchandising and Financing

40

YOU CANNOT MERCHANDISE PROPERLY unless your finances are arranged for at least one year.

The amount of merchandise (the number of cars and models) you have in stock must be in proper ratio to your annual sales.

You cannot sell successfully from pretty pictures—you must have a sufficient amount of stock at all times to create demand and make immediate deliveries.

You demand that your butcher, baker and candlestick maker have meat, bread and candles in stock, or you buy from his competitor who has—for the same reason your "prospects" demand that you have motor cars in stock, or your intelligent competitor who has, receives the order.

Short Time Loans vs. Capital

UNLESS YOU HAVE a large capital, short time loans (90 and 120 days) are as dangerous for you as playing the Stock Market.

Suppose you borrow several thousand dollars for go days, on your stock of motor cars, and because of strikes, panics or other reasons, you have failed to sell them at expiration, you then can be "wiped out" overgight, just like the sheep shorn on Wall Street.

But if you have your financing contracted for, for me year or longer, you ride over the period of depression and your position is safe and sound at all times.

My Plan vs. Others

UNDER CONTRACT I PURCHASE AND consign cars with you for one year—that is equivalent to placing actual capital in your business and is safe and constructive for you.

All finance companies I know of, limit their loans to a 90 or 120-day period—they will not contract or bind themselves to renew.

Ask your own banker and he will tell you that that statement is correct.

Therefore for the motor car merchant my plan represents safety while short time loans greatly endanger his business.

My Offer

I WILL AGREE with you upon a sum of \$5,000 up to \$100,000 and I will then, upon your request, purchase that amount of cars and consign same with you—you deposit 20% upon them, and store the cars in the warehouse or display and sell them in your show-room.

WHEN YOU SELL A CAR MY PROCEEDS COLLECTED FROM THAT CAR WILL BE INVESTED IN ANOTHER—I CONTRACT TO KEEP MY INVESTMENT IN MOTOR CARS IN YOUR STOCK FOR ONE YEAR AND YOU CONTRACT TO PAY ME A SMALL SHARE OF YOUR GROSS PROFITS.

That plan is constructive and safe for you. If you are an intelligent merchant you owe it to yourself to investigate thoroughly my offer and compare it with all other plans for financing motor cars.

With my advice and my money you can become a really successful motor car merchant, merchandising and financing scientifically.

Communicate with me and I shall reply personally

P. S. — PREPARE NOW FOR THE FALL DEMAND! Put yourself in the class of those few dealers who will be smart enough to act immediately.

Demand will continue greater than production next Fall—Learn the lesson of Preparedness and stock cars as quickly as you can to assure yourself of Fall deliveries and profits.

HARRY M. LASKER

5 Columbus Circle, N. Y.

Phone Columbus 8258



What Kind of Hose Do You Use?

While on tour through the northern part of New York State last week I was driving a car that has done upwards of 25000 miles with such uniform satisfaction that I had almost come to regard it as a charmed piece of machinery.

But it went wrong—terribly wrong, and miles from anywhere.

Trouble was in the gasoline system. Not easy to locate, either. After many startings and stoppings, the while having disassembled and re-disassembled vacuum tank and carburetor, the cause of trouble was located (at the end of about six hours) in the main gasoline line.

Earlier in that day I had stopped at a garage in a little town to refill the tank. Gasoline pump was fitted with a hose that should not have been used on a gasoline pump. Ten gallons were pumped into the tank. With the gasoline there was a quantity of fine lint from the hose lining. It eventually formed into a ball in the main line and was the innocent cause of a lot of grief that should not have befallen a motorist on his vacation.

Dealers should avoid the use of the wrong kind of hose on their pumping outfits. Good hose may cost a bit more but it relieves motorists of a lot of unnecessary grief.





Whether for the mountain and open country of the west or in the teeming cities of the east

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NATIONWIDE SERVICE

WHEREVER YOU ARE FROM THE WESTERN SLOPES OF THE ROCKIES TO THE PORT OF NEW YORK THERE IS AN

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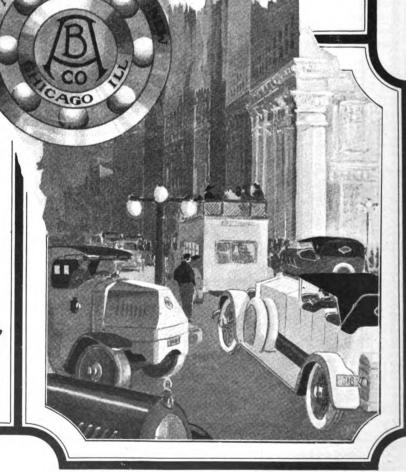
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SAINT LOUIS

FRANCISCO



Vol. LX

New York, U.S.A., Wednesday, August 20, 1919

No. 8

He'll Stop 'Em!



Boys will be boys! But when they see the cop they'll beat it, and the dogs will soon be the best of pals and their wounds will disappear

Now! Everybody, All Together!

NO MORE TIRE

Leadership is lacking in the tire industry on the guarantee question. Some manufacturers don't seem to appreciate the extent to which dealers want guarantees eliminated. Help the campaign along by giving your opinion. Do it NOW! Don't Wait!

HE proposal that tire guarantees be eliminated has reached the stage where most of the manufacturers admit they would like to adopt the suggested policy.

But nobody wants to lead the procession!

A few makers have announced their stand frankly for a "No Guarantee" basis. Others have befogged the issue with talk of "unlimited guarantees." In the main, however, there is no leadership, and it looks as though the movement to free the industry of one of its worst nuisances would have to get impetus from outside manufacturing circles.

Naturally, thought centers upon the dealer—the chief sufferer under the

guarantee evil.

If dealers are unwilling longer to bear the burden of this unbusiness-like merchandising method, WHY SHOULD THEY NOT HELP ITS RECALL?

There is no question of their opinion.

And letters from all sections of the country reaching Motor World show their inclination.

DEALERS, why not tell the manufacturers of the tire you handle just how

you feel about it?

WHY NOT GIVE THEM A BIG BROADSIDE OF OPINION THAT WILL SHOW THEM EXACTLY HOW YOU FEEL ON THE SUBJECT? YOU CAN'T EXPECT THINGS TO BE DONE FOR YOU UNLESS YOU LET IT BE KNOWN WHAT YOU WANT DONE.

SO SHOOT!

And when you wire or write, send a copy of the message to Motor World, as a means of hastening the reform in YOUR BUSINESS.

What Some Dealers Say

This periodical has yet to hear from a dealer who would like to see the guarantee system stand. And some of them are decidedly caustic in saying what they think about it. One likens guaranteeing tire mileage to guaranteeing washes in a cake of soap. Another calls the guarantee "foolishness" and is for active measures to wipe it out. A third believes that tires could be

GUARANTEES

sold at a much lower price without guarantees, which would increase the popularity of the automobile and make more business for all hands. A fourth suggests that if the reform movement is carried on, WHETHER MANUFACTURERS TAKE THE GUARANTEE OFF OR NOT, TIRE DEALERS WILL, FALL, IN LINE AND FORGET THE 8,000 TO 10,000 MILES BEING GUARANTEED AT THIS TIME.

Letters from dealers, in full or in part, in keeping with available space, include the following:

(TO DE PORTO DE COMENCO COMENCO DE LA COMENCO DE COMENCO DE COMENCO DE LA COMENCO DE LA COMENCO DE LA COMENCO

Fight Until You Win

William F. Hedges, Fort Wayne, Ind.: SAY!!

-do you know

"HOW MANY WASHES IN A CAKE OF SOAP???

-the answer is

"HOW MANY MILES IN A TIRE?

---because

Guaranteeing a tire is like guaranteeing a cake of soap.

BOTH

-wear according to use and-abuse.

I always think P. T. Barnum was right when I think of the tire guarantee proposition, and wonder how long the manufacturer is going to continue demoralizing one of the most wonderful branches of the automobile industry, and I for one have sent up a prayer to High Heaven that at least one manufacturer will prove himself big enough to blaze the trail and save the tire business and the public in general from the chicanery that the guarantee makes possible.

I am not writing this because I think I have any literary ability, nor have I any prestige in the tire world, but I only pass you the "cake of soap" simile with a hope that it may prove itself valuable ammunition for you in your campaign, which I trust you will continue until the fight is won and you have the blessings of everyone interested in the welfare of the automobile tire world.

Force Guarantee Elimination

H. A. Bowler, Spokane, Wash.:

In your issue of July 30, regarding No More Tire Guarantees, we appreciate your pioneering in putting this matter before all the dealers of the United States, and believe that it is the first real step taken for real tire merchandising. We believe that if a series of articles were carried out along these lines, that whether the manufacturers took off their guarantee or not, the tire dealers would eventually fall in line and forget the 8,000 to 10,000 miles which are being guaranteed by the tire manufacturers at this time. However, we are for NO DEFINITE GUARANTEED MILEAGE, 100 per cent.

Would Mean Cheaper Tires

A. J. Winters Co., Portland, Ore., by L. D. Winters:

I have before me the issue of Motor World for July 30, 1919, and note on pages 8 and 9 your appeal for the withdrawal of mileage guarantee on automobile tires.

After ten years' experience in selling automobile tires, we can heartily endorse a movement to withdraw the guarantee on automobile tires, and if it is ever possible for us to assist in bringing about such a condition, we will be very glad to do our bit.

We believe that such a step would materially increase the popularity of the automobile, as there is no question but that tires could be sold at a less price without a guarantee, and tire expense is now the bugbear of the automobile public.

Put It Up to Consumer

Auto Sales Co., Remington, Ind.:

Let us congratulate you for the stand that you are taking in regard to the evils of the present tire guarantee now in practice.

We have long been associated with the tire business, and have seen very many cases of trouble that would have been avoided had the consumer not been laboring under the impression that the tire was guaranteed to him absolutely for a certain number of miles, regardless of the manner of care taken of it.

We have watched our tire business expand

NO MORE TIRE GUARANTEES

What Readers Say

under constant lecturing in regard to air pressure and tread cuts, and have made a wonderful reputation for Goodyear tires in our particular locality, part of which we attribute to having shown the consumer that he could and should take better care of his tires.

We trust that you will keep the good work up, and thank you for your efforts in behalf of all of us.

Too Much Free Service

Dunham, Carrigan & Hayden Co., San Francisco:

The writer has noted your articles and wishes to say that this has been his idea for several years. If you can help put this over we believe that you will be doing everyone that has anything to do with the tire business a very great favor. In fact, it is the writer's belief that the guarantee proposition on automobiles and accessories of all kinds has been overworked ever since the beginning.

There is no other line of business on earth in which there has been so much free service and guarantee work done as there is in the automobile lines.

The Reckless Motorist

Morley-Murphy Hardware Co., Green Bay, Wis.: Referring to your campaign to eliminate tire guarantees, we are fully in sympathy with this movement, as we have long realized that the present system of adjustment penalizes the careful motorist in favor of the reckless one.

Let us take away from the car owner the incentive to draw the long bow when asking for a tire adjustment.

Need Educational Campaign

Fulenwider Auto Supply Co., Birmingham, Ala.: We have read with much interest your splendid common sense editorial appearing in the July 30 issue, and we are taking this opportunity of voicing our most hearty approval. We feel that you have started a movement in the right direction in the tire industry throughout the country.

Of course we feel that the general public will have to be re-educated, especially along lines mentioned in your editorial. However, I can think of no better way of bringing about this cducation than through the editorial pages of our leading papers and magazines. Now that

the readjustment period is on we feel that the opportune time is at hand for an educational campaign of this kind, and it is to be hoped that others of our leading papers and magazines as well as yourselves will give much space to the movement

When the consumer has been convinced that he is paying for these guarantees it will then be easier for the manufacturer to remove the guarantees without detriment to the selling features of their product.

Let us assure you of our hearty approval of your splendid editorial.

What Manufacturers Say

Letters from tire manufacturers include a declaration by the Star Tire Co. that the guarantees should be eliminated, while the Firestone, pointing the necessity of getting all the manufacturers to work along the same line, suggests making the change at the beginning of a season. The Kelly-Springfield Tire Co. stands by the guarantee, the United States Tire Co. reannounces its policy of quality guarantees, regardless of mileage, and the Sterling puts forward its method of guaranteeing products free from defects.

Salient points from these statements are:

Stàn

We desire to commend you on your article on the abolition of mileage guarantees.

While it may be true that the manufacturer should have an established basis on which he will make mileage adjustments, we are quite sure that the mileage guarantee proposition is not at all in accordance with good merchandising. There is no reason why a tire, as well as any other article, should not be sold on its merits and the service it will give the purchaser.

Another great evil is the failure of the sales people who deal direct with the consumer to sell anything but mileage guarantees. The consumer is taught, by inefficient salesmanship, to regard mileage guarantee as value, because of many unscrupulous methods which have crept into the retail sale of tires, and a really good tire often has no advantage and in fact usually has a disadvantage over a cheap tire, which someone is willing to guarantee for a long mileage.

This company believes absolutely in the policy you have suggested and that the manufacturer



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AN OPEN LETTER TO THE RUBBER INDUSTRY

HORTLY after Motor World opened this campaign for the elimination of tire guarantees, the representative of one of the biggest rubber companies in the country journeyed from Akron to New York to talk with Motor World about the subject.

During the conversation he was asked if the tire manufacturers had any group or association which brought them together for co-operative purposes, and if any meetings ever were held wherein were discussed subjects of interest to the whole industry.

He said, "No." He added that competition in the tire industry is particularly bitter, that manufacturers "fight" one another in unfair ways, and that it would be impossible to get the various tire makers to meet in any sort of organization.

Such situations have existed in other lines and have been remedied through organization. It is a man's measure of bigness that he sees the benefits of organization and co-operation.

It is Motor World's suggestion that Seiberling, Firestone, or some other big rubber man call a meeting of five or ten companies for the purpose of forming an association of tire manufacturers and then expand it to take in the whole industry.

Let's have broad-mindedness, common sense, co-operation and prosperity.

and the tire seller should co-operate with you, that this evil may be done away with.

Firestone

Since none of the larger tire companies have used the guarantee as a selling argument either in their advertising or sales literature until very recently, I do not understand why the tire trade will have to be governed by the large companies.

Although we are heartily in favor of the idea of selling tires on merit, the same as other standard products, we do not believe that the time is yet ripe to make such a drastic change as you recommend. Especially we do not think it would be desirable to do this in the middle of a season, rather that this should be worked out and put into effect at the beginning of a season, providing you can get all the tire companies to work along the same lines.

Kelly-Springfield

This company does not intend to do away with mileage guarantees.

We think enough of the practical value of mileage guarantees to continue the use of the same.

United States

Our guarantee holds good regardless of the mileage a tire runs. But we do not urge mileage guarantees to sell tires. We stress quality.

Any adjustment that is warranted, due to imperfection in material or workmanship, is gladly made with all the circumstances surrounding the use of the tire being given consideration.

Sterling

We believe the elimination of all tire mileage guarantees to be inevitable because they are based upon an unsound principle.

Fair, honest merchandising demands the kind of a guarantee that assures the purchaser of a square deal.

Caveat emptor has no place in present-day business, but neither should the manufacturer be called upon to bear the burden of wanton or ignorant tire abuse.

Five years ago we established a guarantee unlike any other.

We believe we were, in fact, the first to recognize the fallacy of the old mileage guarantee and to supplant it with the square deal method, making adjustments on the merits of each case.



The demonstration in full swing at Holcomb. In the center is the tented city of the exhibitors, cars which brought prosperous western New

Right and Wrong Ways to STAGE A TRACTOR

New York State Farm Bureau Holds Series of Three, With Tests to Establish Official Fuel, Speed and General Performance Records—Second Meeting, in Wheat Belt at Holcomb, Attracts 25,000 Farmers—Sales and Educational Results Excellent

OLCOMB, N. Y., Aug. 14.—The right sort of tractor demonstration was held here yesterday and to-day.

It eclipsed, from the standpoints of attendance and a real testing of the machines in the presence of dealers and prospective buyers, the muchtouted "national demonstration" at Wichita, which was national only in its large representation of manufacturers as exhibitors.

In this remote farming center the tractors were put through a rigid plowing test of two hours' duration—far too short a time, admittedly, for an ideal study of their capabilities, but a step, at least, in the right direction in that official observations and records were made.

With officials of the State of New York making records of the machines' performances for publication through the county farm agencies, ten makes of tractors plowed and fitted 60 acres of land and hauled and drove various types of farm machinery before an audience of 25,000 persons—all farmers and farmers' wives.

Conducted in the heart of New York's wheat belt, the demonstration

Directed public attention to power farming in three of the State's richest agricultural counties—Ontario, Yates and Wayne.

Brought together tractor distributers and dealers from fifteen counties of western New York.

Proved the value of exhibiting before prospective buyers and dealers the everyday, routine work of the tractor, with "stunts" eliminated and with performances tested by responsible, impartial authorities.

The attendance, according to veteran tractor men, was the largest at any similar demonstration ever held east of the Mississippi. More important, the crowd was practically free of sight-seers, Holcomb being a farming community, three miles from the nearest railroad and so far from the western New York population centers that only farmers and their families, practically interested in tractors, made the trip to the grounds.

As a result, sales on the field were numerous, and the exhibitors carried away with them fat prospect lists. based on talks with inquiring farm owners, promising a lively fall and winter business.

Opinion among the tractor men was unanimous that demonstrations of this type are of high value to the industry, selling the power farming idea to the farmer in his home surroundings and furnishing effective salesmanship ammunition to the local dealer through publication of records made by a public agency in which the farmer has faith—the State Department of Farms and Markets.

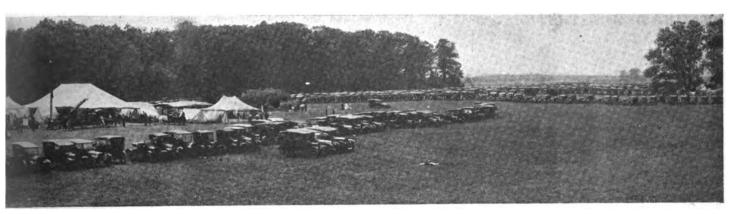
What the Tests Were

The State tests, extending over two hours and applied only to the plowing, covered:

Fuel consumption.
Speed.

Stops, their length and cause. Depth of furrow.

(Continued on page 14)



with the plowing field beyond. In the foreground, and to the right, are some of the 2,000 motor York farmers to the grounds by thousands

DEMONSTRATION

Pennsylvania State College and Dauphin County Farm Bureau Supervise Meeting at Harrisburg, but Tests Are Lacking, Leaving Results Inconclusive—Rain Holds Attendance Down to 3,000—Central Pennsylvania Shows Interest in Power Farming

ARRISBURG, PA., Aug. 13.—A heavy rain this morning marred what otherwise would have been a much greater tractor demonstration than the one held last year, from the viewpoint of attendance. On the 12th, the first day, over 3,000 farmers from the Central districts of Pennsylvania gathered at the Bonnymead farm, a few miles east of this city, and watched twenty-two tractors plow, disk and pulverize about 40 acres of rolling wheat land.

The intention had been to repeat the performance to-day on another tract of land of approximately the same size, but evidently old Jupiter Pluvius had some ideas of his own on the subject, and as he was in the majority, judging from the abundance of raindrops, the tractor operators quit, and devoted their energies to sales talks under canvas, which at least kept off part of the rain, even if it did run all over the tent floors and make a quagmire of the whole place. The attendance the second day was very small, and only a few of the machines attempted to do

any plowing. The results, therefore, will have to be judged solely from the first day.

The demonstration was staged by the Dauphin County Farm Bureau and the Pennsylvania State College, with the assistance of a considerable number of county agents from various parts of the State.

No Records Kept

Each tractor was given a plot of approximately two acres, and this the machines were able to plow in the two hours in the morning and disk and pulverize in the afternoon. No records were kept as to consumption of fuel or oil, nor was any attempt made to time the machines and ascertain the causes and durations of stops in the field. In this respect the demonstration fell short of the one held at Marsh Run last year. Many questions were asked by the spectators as to the economy of the machines, but no answers were given, unless the average sales talks could be counted as such. If the advantages of location that this

year's demonstration possessed had been coupled with a complete tabulation of statistics like that so successfully carried out last year, the demonstration would have left a permanent record of its achievements instead of the transitory attention that it received.

The following makes of tractors were entered and finished their plots according to the rules: Wheat, Moline, Case, Plowman, Frick, Avery, Titan, Huber, Cletrac, Parrett, La Crosse, Fordson, Waterloo Boy, Emerson-Brantingham, Whitney and Allis-Chalmers.

Auxiliary Exhibits

In addition to the tractors, several equipment, plow, disk harrow and other manufacturers were represented, and two farm lighting plants attracted considerable attention. These were the Delco and the Marco, made by the Marmon Chicago Co., Chicago. The installations were a little crude, the bases being nothing more than pack-

(Continued on page 16)

HOLCOMB DEMONSTRATION

(Continued from page 12)

The testing was done the afternoon of the first day, when the tractors, grouped in one, two and three-plow sections, lined up in a rolling field of wheat stubble, the clay soil caked by several days of mid-summer sun, and started together furrowing carefully surveyed sections for which they had drawn lots.

Timing was done on each machine's entered speed, and none was permitted to enter at maximum speed, the plan being to show not fast plowing, but sane, painstaking work of the kind the farmer wants on his own land.

The majority of machines entered at $2\frac{1}{2}$ m.p.h., the others ranging from 2 to $3\frac{1}{2}$ m.p.h.

And they were held by the observers strictly to these speeds, not only for the two hours, but on each furrow.

The plowing test was viewed at close range by a throng of farmersand not a few farm women-who literally swarmed over the 60-acre field, at times necessitating the services of State police and committeemen to clear the way for the tractors. Each plow was followed by 200 to 300 men, who plodded through the stubble or plowed soil, braving the clouds of dust kicked up by the machines to make minute scrutiny of what the tractors were doing. The watchers shifted their observation points, too, so that the majority of them during the two hours of furrowing obtained first-hand, closeup information of the work of the twelve machines, two of the ten makers having entered two types of

The crowds were almost as large for the non-tested plowing and fitting exhibitions, including the grand finale of the demonstration—the plowing of a field of alfalfa stubble on a 30 per cent grade. The machines completed the latter task with few stops and without breaking plowshares, drawing enthusiastic comment from farmers generally and triumphant "I told you so's" from many of Ontario County's 1000 tractor owners, who attended the demonstration to compare the work of the professionally driven machines with their own.

Real Power Farming Show

Nor was the demonstration confined to tractors. It was called a power-farming demonstration, and lived up to its name, several of the tractor exhibitors showing reaping, threshing, insulage cutting, manure spreading and other types of machines operated by the tractor's power, while others displayed motor-driven appliances for both indoor and outdoor work con-

nected with the farm and the farm household, the latter class proving a factor in attracting hundreds of women visitors. Farm lighting exhibits also were strong drawing cards.

The managing officials made a canvass of the exhibitors at the close of the final day and found opinion unanimous that the demonstration had been highly successful, from the standpoints of education, sales and prospects of sales. The tractor men rated the demonstration as one of the most effective in the history of the industry, BECAUSE THE STATE REGULA-TIONS AND TESTS TOOK IT OUT OF THE FIELD OF MERE EXHIBI-TION. Most of them announced their readiness to attend five or six similarly conducted demonstrations in New York next year, if they could be arranged, and one exhibit manager said he would be glad to enter tractors in a dozen events of this sort for the next year or two at least.

Tractor Industry Needs Demonstrations

While looking forward to the day when demonstrations, with their attendant high cost, may be unnecessary, most of the tractor exhibitors conceded that meetings with farmers, with real tests and records supervised by public officials, were essential in the present stage of the industry. With only 6000 machines in operation, the tractor is in its infancy in New York, and must be assisted to sturdy maturity by means of education and propaganda.

Demonstrations in the farming sections, the exhibitors pointed out, SET THE WHOLE COUNTRYSIDE TALKING TRACTORS, and eliminate largely the necessity of exhibitions on the individual farms of prospects, an undertaking which, at best, can reach only a small percentage of the farming population.

Further, the demonstrations bring together under conditions favorable to serious discussion of tractor performance, tractor owners and nonowners in a large territory, and the former, in western New York, at least, are almost unanimously tractor boosters. The exhibitors at Holcomb had free the services of upward of 1000 volunteer salesmen, farmers who own tractors and wonder how they ever got along without them—and, above all, who have the confidence of their neighbors, so that the gospel they preached fell on attentive ears.

The methods followed by the demonstration management—the Bureau of Production of the State Department of Farms and Markets, with F. G. Behrends, superintendent of farm ma-

chinery, in charge—were commended by the tractor men—without exception.

The demonstration was one of a series of three, the first having been held at Utica late in July, with an aggregate attendance for the two days of 17,000, and the third being scheduled for the last week in August at Potsdam, in St. Lawrence County.

Exhibitors were allowed to enter only one tractor of each size, manning the machines was held to a single operator, both for the tractor and the plows, with an extra plowman, if desired, making one round of the field at the start, and trying out and adjustment of apparatus were prohibited on the demonstration days.

Tests Carefully Observed

For the fuel test, in connection with the 2-hour plowing demonstration, the tanks of all tractors were drained and filled with standard type fuel in the presence of inspectors. When the job was done the fuel left was measured. Three general field supervisors watched the plowing, while an observer and furrow depth checker accompanied each machine, the former noting elapsed time for each furrow and turn, stops, their length and cause and any unusual attention to machinery, while the furrow man checked depth, holding the entrants to a 7 and 8-in. minimum and maximum.

After the last of the demonstrations the bureau will publish through the county farm agencies and in local newspapers the detailed record of each machine's performance, PUTTING THE OFFICIAL STORY OF THE SERIES INTO THE HANDS OF DISTRIBUTERS, DEALERS AND FARMERS THROUGHOUT THE STATE.

This series of demonstrations is the first venture of its type in New York. A few scattered tractor meetings have been held in past years, notably one in 1918 at Stanley, together with the annual exhibits at the State fair at Syracuse, but at these no records were kept. The success of the current series will result, it is expected, in the holding of demonstrations next year in the same general localities, with additional exhibitions in the eastern and extreme western territories.

Such a program, in the opinion of officials and exhibitors at Holcomb, would put the tractor industry firmly on its feet in New York, and encourage wider use of power farming, as well, in neighboring eastern states.

A canvass of the field at Holcomb failed to reveal a dissatisfied tractor exhibitor. Almost without exception the tractors on the ground, both for operating and show purposes, were



Emerson - Brantingham — James Frawley, service man; C. L. Borst, territory man



Moline — L. L. Putney, western New York sales manager



Above: International —
Howard Goff, distributer.
Below: Cletrac — D. B.
Mahaffey, service man



Fordson—Gordon Lee, New York, sales manager; W. F. Harvey,
Lima dealer



Case—E. A. Getman, Geneva distributer; George H. Barker, Rochester dealer; C. K. Fryer, assistant New York manager; A. G. Kellam, New York manager



F. G. BEHRENDS
Demonstration Manager



Deere—Howard M. Bly, Ward Roder, F. E. Lowell, George H. Alt, Jr., A. E. Eusterman, Manville Dobbin. Alt is a dealer at Grand Isle, the others territory men

What the Camera
Saw at the
Western New York
Tractor
Demonstration



The demonstration showed power farming in general as well as tractor operation. Fordson driving a threshing machine





Crowds intent on watching the quality of the plowing as well as the workings of the tractors followed the machines about the field

sold, as was also much of the other machinery. Sales for future delivery also were numerous, and the distributers and county dealers went home with prospect lists containing names of farmers who wanted to think it over, which meant, in many cases, no doubt, an intention to wait for the demonstration records to supplement their own observations. The Fordson people made public their sales, which numbered thirty-three.

Pros; erous Crowd Present

The demonstration offered striking evidence of the rapid motorization of the State's farming country. With perhaps a dozen exceptions where horse-drawn vehicles were used, the farmers drove to the grounds in automobiles, the majority of makes indicating prosperity of their owners. Members of the State staff counted on the first day 2000 motor cars parked on the field at one time, and the number was almost as great the second day. Ideal weather helped in a large measure to bring out the crowds, which were estimated at 13,000 the first day, and fully 12,000 the next.

The tractors entered were: Water-loo Boy (Deere), Emerson-Branting-ham, Fordson, Huber, Case, 2; La Crosse, International and Titan (International), Moline Universal, Cletrac and Indiana. The Indiana drew one 16-in. plow, the others two and three 14-in. plows.

The Rules

The New York State rules, applying to all the 1919 demonstrations, and containing possible suggestions for managers in other States, included the following provisions:

MACHINES: Only one tractor of one size may be entered for the demonstration by the same company. As many tractors of different sizes may be entered by the same company as desired. Only tractors entered may be on the demonstration field. Your operator and no one else must handle both the tractor and plows. No machines not entered in the demonstration may be on the demonstration grounds during demonstration hours.

ADVERTISING: Each tractor, each plow and each disc may carry one sign. The sign on the tractor may state its make and rating and those on the plows and discs the make. Circulars, literature, etc., may be given out freely. No tents may be erected on the demonstration plot. No spectacular methods will be permitted on the part of salesmen or others to attract crowds. Sales may be made anywhere on the grounds.

FUELS: The management will have gasoline and kerosene on the grounds for the official demonstrations when fuel consumption tests will be conducted. All fuel will be measured and tanks filled, settlement for fuel to be made directly with the oil company supplying the oil. The prices for fuel will be the regular trade prices in effect at that time.

During the demonstrations when no record of fuel consumption is made, the fuel used is optional with the company, with the understanding that only such fuel be used as is recommended by your company for such work. A mixture of gasoline and kerosene, or of these fuels and ether, or of any fuels may not be used. Any machine found using such combination will be barred from all

Get This!

In the present stage of the industry the farmer does not go to a tractor demonstration to see tractors plow.

He can drop around to a neighbor's farm for that experience

It follows that a demonstration to attract tractor prospects in sufficient numbers to make it worth while to the exhibitors must have a definite drawing power.

And experience has proven that this quality lies in official inspecting, testing and recording of the tractors' performances.

Twenty-five thousand farmers attended the demonstration in Ontario County, not to see how tractors work, but to watch their performances under official regulations, and to check up their own observations with the records soon to be published by the State Bureau of Farms and Markets.

The New York State demonstration rules for 1919, under which this and other demonstrations are being conducted, are not above criticism—a plowing test of five hours. a half-day on the farm, would have been more conclusive than one of two—but they are scientifically drawn and could easily be applied, possibly with slight modifications, in any State.

Are tractor demonstrations in prospect, for this fall or next year, in nour state? Will then be officially conducted? Will they offer real tests?

If not, why not get going NOW to induce action by your state department to help you boost the tractor IN THE RIGHT WAY?

Read the summary of the New York State rules on this page, lay it before your authorities as a suggestion—and start something!

future demonstrations held under the supervision of this bureau.

MANAGEMENT: Each company exhibiting at this demonstration shall appoint one manager who will be expected to report to the manager of the demonstration not later than 9 o'clock each morning for instructions and information regarding the day's work. This manager will be held accountable for the work of his company and no instructions will

be issued to any one else, nor will requests, instructions or complaints be recognized from anyone but this manager.

The demonstration manager shall have authority to order from the field any machine whose operator does not comply with the rules; and further, any company which manifestly disregards the rules will not have land laid out or furnished in another demonstration or until such time as our conditions have been met.

It shall be a violation of the rules and regulations for any company to put on at the same time an exhibit within five miles of where the state demonstration is being held, or to do any other thing in the way of exhibiting machines that would detract from the state's tractor demonstration.

In addition to the manager, there will be an assistant manager and a corps of inspectors. One inspector will be assigned to each machine, and he will stay with that machine throughout the demonstration.

Harrisburg Demonstration

(Continued from page 13)

ing case heads, but they performed satisfactorily and the crowds kept the demonstrators busy.

While little can be said of the direct sales attributable to the demonstration, the tractor farming argument was convincing and the increased attendance over last year was very gratifying. Harrisburg is the center of the rich farming land of central Pennsylvania, and there are several branch houses of tractor and plow factories located in the city, besides about a dozen dealers and distributers of tractors.

Considerable advance publicity had been given to the event and local newspapers helped the thing along in great shape. Supplementing the demonstration were lectures by various authorities, given in the headquarters tent during the lunch hours. R. U. Blasingame, who is in charge of agricultural engineering at the Pennsylvania State College, spoke on the care and upkeep of tractors.

Many of the tractors were moved to Butler, Pa., where a similar demonstration will be held Aug. 21 and 22.

Harrisburg is keeping the farm machinery in the limelight. Last February there was a fine tractor and farm machinery show in the Emerson-Brantingham building, on Market Street, and last September there was a tractor demonstration at Marsh Run. In addition to this, tractors, together with cars, trucks and accessories, will be exhibited at the Grangers' Picnic Aug. 26-29 at Williams Grove, not far from here.



Selling

FARM LIGHTING

A Full Sized Job

Iowa automobile dealer finds it must be treated practically as a separate business, and service force distinct from sales organization should be maintained

HEN George W. Jones, automobile dealer of Des Moines, decided to sell farm lights he did just one thing. That was:

To form a subsidiary company, with separate quarters and staff of workers, absolutely divorced except in ownership from his motor car business. In other words, he departmentized, believing that the field was not a seasonable one and that it was not to be confused with the sale of automobiles.

As a result, Jones, who is president of the Hudson-Jones Co., the Hudson distributer at Des Moines, believes in and has profited substantially from his new venture. About three years ago, he first got the idea of farm lighting and decided that the possibilities for it in Iowa were just as fertile as they had been for the motor car. He made a trip to the factory, signed up his contract and began distribution in thirty-seven counties in Central Iowa. And this is what he has done and how he has accomplished it:

Side Issue Plant Won't Do

Jones thought the motor car dealer was the logical man to sell farm lighting. But from the start he realized that it could not be a side issue to the car business and so he formed the Electric Farm Lighting Co. as a subsidiary concern, establishing it in another building about half a block from his salesrooms. Although he controls both companies, the lighting company is run as an entirely separate and distinct unit, with its own office force, sales organization, and confused in no way with the motor car business.

V. R. Evans was secured to take charge of the new business. He had been in the farm lighting field for several years and, at the time of connecting with Jones, had been associated with a Des Moines concern manufacturing farm lighting plants.

In the three years of its existence,

the Electric Farm Lighting Co. has distributed 1,700 plants in the thirty-seven counties in the territory. In the month of May, 1919, the number of plants sold was seventy. These two figures show in mighty few words whether or not farm lighting plants can be sold by the motor car dealer.

Problem to Get Right Men

Evans believes that the motor car dealer who does not take on farm lighting is losing one of the chances of a lifetime. "The car dealer is the logical dealer or distributer for farm lighting plants," this manager says. "He has developed a sales force and an advanced selling method which puts him in a class by himself in the sales field. Then, too, he has the financial standing and responsibility to put the thing across."

One of the big problems has been to find the right kind of a dealer. He doesn't want the "cut and try" men who may be selling books one week and sewing machines the next. He wants the man who has made a success of the motor car business and who is in it to stay. Another trouble thus far with the motor car dealers in the farm lighting field is that they have not seen its full possibilities. They have considered it a side line to be worked in the off season of the motor car business. Evans believes that the only way for the dealer to make a success of the farm light is to establish it as a separate and distinct department of his organization and to work it the full six days of every week.

When the Jones company took over the thirty-seven counties in the Des Moines section, the territory was divided on the basis of one dealer for every 1,100 farm-owned homes, and, incidentally, the renter is not given much attention as a prospect. The man who owns his farm is thought to be the one who, most probably, will want the comforts and conveniences for himself and his family.

In addition to the supervision given the sales in the territory by Evans himself, there are two division managers and a small force of "closing salesmen." The division managers give practically all their time to the supervision and assistance of the individual dealers, while the closing salesmen are just what their name implies. Both classes spend all their time in the territory.

The Evans formula for selling farm lighting is just to go out and work the territory. The Electric Farm Lighting Co. is a firm believer in advertising and office supervision in the way of sales letters and follow-ups. But they say that these methods are simply incidental, and the only real way to sell the goods is to put a demonstrator on the back of a motor car and go out into the country from farm to farm and show the farmers just what the light will do. Each dealer carries from seventy-five to a hundred feet of cord. and when he backs his car up to a farmhouse it is only a few minutes until the house is lighted so the farmer and his family can see just what results the plant will give.

Every dealer in the Des Moines territory maintains consistently a prospect list, and watches it closely. These lists are made in three copies, one being a card form which is retained by the dealer for an index file, the other two being different colored paper. Of the two thin sheets one is forwarded to the factory and the other to the Des Moines office, where it is used for follow-up letters.

Need Installation Man

Particularly during the past year Evans has been urging his dealers to get away from doing the installation work themselves. He figures that a dealer's job is to sell goods, and it is an easy matter to pick up a service man who will make a good installation. If the dealer devotes all of his time to sales, and leaves the actual work of placing the plant to the service man, he can accomplish more. As a result many of the dealers in the Des Moines territory now employ service men, and spend all their own time on sales, just as does any good motor-car dealer.

Summing it all up, Jones and Evans say that the motor-car dealer can make the same success in Iowa from farm lighting as he has done with the motor car if he will establish a farm lighting department just as he has a service room distinct from his sales department, working it 313 days in the year and not just as a seasonable proposition during the off motor-car season.

"Telling the World"

Reilly's Ideas on How to Make Known to the Public That a Dealer Has a New Business Home

By Ray W. Sherman

COMMINICATION DE STANDES ANGEMENTARISMENTARIA DE CONTRACASTO O ESTANDA DE CONTRACASTO O ESTANDA DE CONTRACASTO

OING fine! Running like a top! Would make a lot of money this year if—"

"If you had any cars to sell," Reilly

interrupted.

"That's it-exactly!" And forthwith Jerry Jenn, Sennett dealer in the swift young western city of Neville, lighted another cigarette, threw the match in the iron waste basket and made four tries before he found an altitude that suited his feet. The final location of these sixteen-dollar shoes was with their heels dropped down between the clapper and one of the bells on the telephone, all of which wasn't so bad for the occasion because it kept the telephone from ringing and was more effective than many leagues for peace.

When Jenn had been a salesman on the road for the Sennett factory, dashing into Sayanna periodically and out again, he was one of the best liked men on the road. His many friends wished him well when he signed notes, bought a branch, set up for himself in Neville as a dealer and began to make money. And now he was re-covering some of his old territory as a vacation trip. He said it always rested him to watch other

folks work.

"Yes, going fine!" enthused Jerry. "Hitting along on all twelve. Made enough in three years to pay off all my debts. Made enough in two years more to buy the building-and now I've had a new one built for me and we've just moved in. Some dump! Believe Nothing like it anywhere in the me! country."

"I'll bet so!" Reilly agreed.
"Bet's right!" sang Jerry. "And we had a little old opening out there that opened the eyes of the world. They're talking about it yet!"

"Did you have it before the first of

July?"

"Nothing like that, old thing, old thing! Just a sane, solid, substantial ring-dinger of an opening! Some time!" And Jerry changed heels on the telephone bell and fished for more cigarettes.

"Yes," he continued, "it was some opening. I'm proud of it. I'll have to tell you about it. You see, we had a ring-dinger of a building, nice floor in

Why This Story Was Written

Sacare ara no resea de acua anta manana a manana a manana a manana a manana a manana a mana sa mana sa manana a

EDITOR Motor World: As subscriber to your paper, the writer would appreciate very much receiving from you information relative to the most practical manner in which we could announce to our customers and the general public the fact that we have moved into our new location.

Also a general idea of the most feasible plan in connection with having an opening day in order to have the general public visit our new establishment.

Assuring you that we will appreciate very much any assistance you can give us in this connection, we remain. yours very truly—Bannock Motor Sales Co., J. I. Goldstein, Boise, Idaho, Maxwell dealer.

[It was suggested to the Bannock company that it could use all or part of this plan, according to the extent to which it wished to go, and that with the plan in modified form could be used large newspaper display space. Newspaper space was omitted in the plan in the story because the plan as described is considerable advertising of itself. However, ads could be used if provision in the plan as adopted were made for this form of publicity. Advertising, however, would lessen the "class" of the invitation appeal -Editor.]

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the salesroom, gray walls in the most approved eastern finish, mezzanine floor for the business offices, rest room for the ladies, big wide floors in the service station-and-everything!

"We got all set and then started to figure out how we could tell the world who we were, where we were and why we were. We wanted to do some advertising or something and get the fact that we had a new home before the public. We also wanted folks to come and look at our dump so they'd know it was a regular place. We figured a long time and then decided we'd have a week-end opening."

"A week end opening! Whaddyuhmean -week-end opening?

"Latest thing in openings!" laughed Jerry. "It hasn't reached the East yet. In fact, it hasn't got much beyond our territory-but it will. Just give us time! We'll show the world how a real town can hoot.

"We wanted to do more than the usual in openings, and the first idea was to make the opening last more than the usual afternoon and evening. Well, we go to adding days until we decided three days would be fine, and then came the job of selecting the days. One of the boys said why not have it over the week end-and so we did.

"At first we figured on three days of regular opening stuff, but after this week-end idea bobbed into sight the whole thing just unrolled itself like a sheet of wall paper and there was the whole darned business as plain as day.'

'I don't—"

"I know," Jerry rambled on, "you don't get it yet. You Easterners never do until about an hour after the parade has gone by. But you will-you will-just give it time to sink in. Just listen! I'll do all your thinking for you.

"We saw in a minute that here was a chance to have three days of program with no two days alike. This would permit everybody to come every day if he wanted to. We decided to start the parade on Friday and end it Sunday afternoon. Gee, Reilly, but it was great!

The town fell over itself!"
"Yes! Yes! Come on! What about the darned old program?"

"Wait-wait-don't get excited. I'll get to that in a minute. You see, we opened her up rather easy—slipped her into low, don't you know. On Friday we held an informal reception in the afternoon for the women car owners and their women friends. We sent out an invitation
—here's a copy—which covered the whole darned works.

"And say! The women came in droves. I never had such an afternoon in my life. It was some affair! By labeling it 'informal reception' it kept away any of those folks who wouldn't have been desirable. 'Informal' sounds just as formal as 'formal,' and only those who knew the difference came. That made it fairly formal so far as the character of the crowd was concerned.

"We had tea at four o'clock-just like a bally rotter, what ho-and the orchestra went and hid behind some bushes that we rented from the flower store and played a lot of that nice Italian funeral stuff that begins like the end of a perfect day and runs on through to the swan song from Cafeteria Mc-Canna. The women gabbled around all the afternoon, the salesmen got all fussed up and embarrassed and a pleasant time was had by all."

"Ha, ha!" said Reilly.

"Hold your ha-ha," admonished Jerry.
"We are about to arrive at Friday evening. On your right you have the terrible Whang Do-You see, after these women had such a grand time in the afternoon they all went home in the evening and told their husbands they'd better doll up and show up for the big parade or they'd be passé—and show up they did!

"We had the big service station floor all fixed up for a moving picture show. We rented chairs from an undertaker or two who didn't have any corpses on hand at that particular time and we cooked up the show. We left plenty of room between the rows of seats so folks could come late and go early if they wanted to. And we had boys with ice water-and everything.

"First we put on a long picture, about a quarter to eight. The show started as soon as there were a dozen people in the house and ran right through to the finish. After the long picture, when the crowd was all seated, we put on a one-reel comedy. Then we showed some stereopticon pictures of our old plant, the new plant, the service wagon, pictures of the organization-and everything. And then we ran a reel showing the factory, old Jim the sales manager, the various processes and all that sort of thing. And then we slipped in another comedy and went back and ran the long first picture over again for the benefit of the late comers. It was nearly midnight before the last visitor went home.

"And-brother Reilly-don't forget that we got in some announcements once in a while about the rest of our program.

"We have now arrived at Saturday afternoon. Behold one of our commodious floors made ready for the gentle terpsichorean art. We had a professional dancing master and lady on hand to give individual and group

You Are Cordially Invited to Attend a Week-End Party

Унивичницинализи по принивичници по принивичници принивичници и принивичници и принивичници и принивичници и п

in the new home of the Jerry Jenn Motor Company at First and New Streets, June 19-20-21.

This invitation you may also extend to any friends whom you desire to accompany you.

This party is being given because we believe it furnishes an excellent opportunity for showing our new home, of which we are very proud, and for making the motoring fraternity of Neville better acquainted with one another.

FRIDAY AFTERNOON, 3 O'CLOCK.

An informal reception for ladies in our new salesroom. Music and tea. You are invited to bring your women friends with you.

FRIDAY EVENING, 8 O'CLOCK.

An Unusual Moving Picture Show-Amusing and Educational.

Several reels of comedy and entertainment, including the new emotional story: Jane and the Man.

Also, the picture story of the inside of the great motor car industry, showing how cars are made, tested and distributed to users.

SATURDAY AFTERNOON, 3 O'CLOCK.

Professor and Madame Le Grande, of Center City, will give instructions in the latest dance steps, in our new salesroom.

SATURDAY EVENING, 8 O'CLOCK.

An informal dancing party on our large service station floor, to which you are invited to bring your friends.

SUNDAY AFTERNOON, 3:30 O'CLOCK.

A melody vocal concert on our new service station floor. Every one will have an opportunity to sing the old songs that we sang years ago, including the hymns we all loved so well.

SUNDAY EVENING, 7:30 O'CLOCK.

The Neville Harmony Orchestra, which plays in the afternoon, will lead in a special song service at the First Bantist Church.

NOTE-At all these functions moving pictures will be taken and later shown in the Neville Theater, at which time you will be invited to "see yourself as others see you", as a guest of the Jerry Jenn Motor Company.

dancing lessons to any who felt that their feet were not quite capable of going where they should when the band played 'Til We Meet Again.'

"And, having taught the world how to dance we had a real dance that evening on one of the big floors. Some of the smaller rooms were fitted up for smoking rooms and all that sort of thing, with more punch and then more punch

all made with a prohibition recipe. And down on another floor we had a lot of travel movies, industrial stuff andand-and everything.

"Some party! Believe me, what?"

"Sounds as though it might have been quite an occasion," Reilly grudgingly admitted.

"And then-just wait-and then we come to Sunday, the closing day of the whole parade. Sunday afternoon we had the place all decorated with flowers and things, and we even had some big pictures that we borrowed from one of the department stores placed in appropriate locations. We had a big one of some bird out in a potato lot with his old woman wondering when the six o'clock whistle's going to blow. And there was another one of a lot of truck horses going down the street the way they used to lead 'em out of the horse yards at Buffalo. And there was another one showing a big guy sitting on a rock with his chin in his hand wondering who stole his clothes. We had the department store man fix the lights on them and, say boy, it was some show!

"We had an orchestra, the best we could get, playing everything from 'Old Black Joe' to 'Auld Lang Syne'-you know -things that common folks know the words of and can sing without looking in the hymn book. And, at that, we distributed the words of the songs all over the place in a nifty souvenir program. It was some function, old top. Folks that thought they couldn't sing without one foot on a brass rail sat alongside folks that would have thought it desecrating the Sabbath if we hadn't called it a 'symphony afternoon'-but we got 'em all together and a pleasant time was had by all.

"And-that evening we sent the orchestra down to play at the biggest church in town! Some evening, what?" "I'll say so!" Reilly again agreed.

"And-ha, ha!-here's the joker," laughed Jerry. "We took moving pictures of everything all the way through. and we showed the movies in the leading theater a few days later. We asked every one at our party to leave his name and address so we could send him or her free tickets to the movies so they could see themselves as others see them.

"We got hundreds of names-and a lot of 'em are good prospects. Furthermore, we got a lot of free advertising in the newspapers and the folks know we're there.

"Cost? Darned if I know! Haven't figured it up. Don't spoil my vacation by mentioning it. But it was some party. I'll tell the world—"

"Yes, yes," said Reilly, as the removal of Jerry's feet permitted the telephone to ring "Out? No! I don't wonder you couldn't get me! A wild nut from out West has had his feet on the telephone bell for an hour."

"I'll tell the world!" mused Jerry, lighting another cigarette. And then he walked over to the door, teetered on his heels, his hands in his pockets and softly sang the first verse of "Mother McChree" to the tune of the chorus.



A Department of

BETTER MECHANICS

No. 113

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the ninth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

ICKING up the strands of the articles that have preceded this, we find that certain parts of the engine have been partially assembled in the process of overhauling. In the preparation and burning in of the bearings, for instance, the pistons, rings and other details were all attended to before the burning-in took place, so that these parts would not afterward have to be taken out. The connecting rods and bearings are all supposed to be properly fitted and in their right places, the camshaft and camshaft bearings have been fitted, the camshaft gears properly

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What Has Been Covered

System in handling Ford service Labor operations covering repair work

Segregation of work Arrangement of departments Disposition of old material

I-The power plant

- 1-Removing the engine from the car. 1—Removing the engine from the car.
 2—Taking down the engine.
 3—Testing and straightening the crankshaft.
 4—Rebabbitting the cylinder block.
 5—Reboring the cylinders.
 6—Fitting new pistons.
 7—Fitting the piston pin.
 8—Aligning the connecting rod.
 9—Fitting the rings to the pistons.
 10—Burning in the bearings.
 11—Testing and overhauling the mag-

- -Testing and overhauling the mag-
- neto. —Overhauling the transmission. —Minor engine repairs. —The carbureter.

This Week

Assembly of Engine and Transmission

timed, the flywheel assembled to the crankshaft, the oil pipe in place and the transmission assembled so far as the drums, clutch, etc., are concerned.

Magneto Clearance

When the main bearings were fitted by the burning-in process, the ends of the rear main bearing were also fitted to the crankshaft so that there would be no more end motion to the crankshaft than was absolutely necessary for the shaft to turn easily. If there is end motion, it will be impossible to maintain the magnets and the spools in the proper relation to each other and the result will be that when the shaft backs up the magneto distance will be increased with a consequent reduction in the current delivered by the magneto, and when the shaft moves forward the voltage will be greatly increased and the danger of burning out the lamps and pitting on the coil contacts will be much greater.

When assurance is had that there is no end motion to the crankshaft, the distance between the cores of the spools and the magnets should be definitely

set so that there is a gap of exactly

1.—This distance is changed by altering the number of magneto-coil support shims (Part No. 3272).

2.—These are shown in Fig. 81. They are made of sheet steel and increasing the number of shims decreases the magneto gap, while decreasing the number of shims increases the magneto gap.

3.—This distance is to be measured after the bolts have been set down tight.

The Crankcase Nosc

Before assembling the lower crank-

Next Week

The Ignition

Future Installments

Testing and running-in the engine The radiator

Rear assembly

Front assembly

Chassis frame and dash

Body, top and windshield

The steering gear

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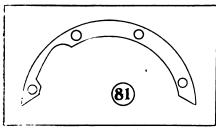


Fig. 81—Magneto coil support shim

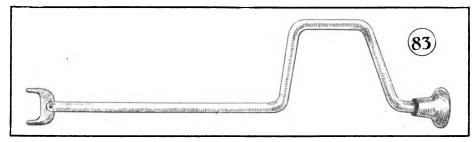


Fig. 83-Valve grinding tool for ordinary shop work

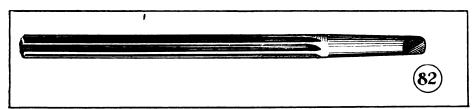


Fig. 82—Steering bracket bushing reamer which is used for reaming the starting crank bushing

case to the block, see that the nose is in proper condition.

- 1.—The rivets should all be tight.
- 2.—The brazing should be intact if the part is brazed.
- 3—If the crank handle is loose in the bushing so that it rattles, it should be replaced with a new one.
 - 4.—Drive the old bushing out.
 - 5—Insert the new bushing.

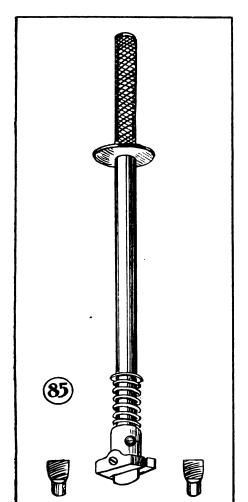


Fig. 85—Valve grinder with universal joint

- 6.—Ream out the hole with the reamer shown in Fig. 82. This is the steering-bracket bushing reamer, but it is the same size as the starting crank and is, therefore, used for this purpose.
- 7.—Put the starting crank in place in the bushing, first having slipped the spring in place. The spring can be slid down on the bend of the crank to facilitate matters in putting the ratchet and pin in place.
 - 8.—Put the ratchet in place.
- 9.—Insert the pin and rivet the ends so that it cannot fall out and so that the ends do not extend out any more than is necessary.
 - 10.—Put the spring in its place.

Replacing and Grinding Valves

- 1.—The push rods should have been examined previous to the installation of the camshaft, and if they are worn so that they would rattle or tend to change the timing of the valves, they should be replaced with oversize push rods, reaming the holes with the oversize reamer which is provided for the purpose.
- 2.—In an engine overhaul, it is best to take no chances with the valves, particularly if the seats and ports have been reamed out, as the cost of new valves is so small that new ones will far outdistance fiddling with the old ones.
- 3.—The valves should be ground with a fairly thick mixture of powdered emery and thin oil, such as is ordinarily used for lubricating the Ford engine. This should be mixed so that it is not so thin that it will run down into the ports, and it should be used very sparingly.
- 4.—When grinding a valve be sure that the camshaft is in such a position that the push rod is all the way down or on the heel of the cam. If the cam is up, the valve will simply turn around on the push rod and the seats will not touch each other.
- 5.—Use a valve grinder such as is shown in Fig 83. It is much easier and quicker than the short ones that are used by owners. However, when the

valves are ground with the engine in the car, the clearance on the last two valves is so small that it will either be necessary to use a short grinder like Fig 84 or one with a universal joint like Fig. 85.

- 6.—In grinding the valves, use an oscillating motion or a swing back and forth, covering a little more than half a circle each time. Every few swings change the position of the valve and lift it up a little so that fresh grinding compound will get under the seat.
- 7.—A handy time-saver for this purpose consists in cutting an old valve spring so that it is just long enough to raise the valve about ¼ in. from its seat when the pressure is taken off. A diagram of this device is shown in Fig. 86.
- 8.—A good seat is obtained when there is an unbroken white line all around both the valve and the seat. It is not necessary that the line be wide, in fact, a better seat is obtained with a very narrow line. Neither is it necessary to have

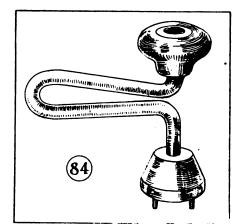


Fig. 84—Short valve yrinder for fourth cylinder under dash

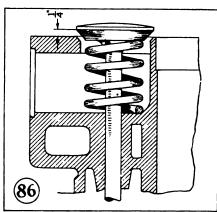


Fig. 86—Spring cut off to lift the valve off the seat when grinding

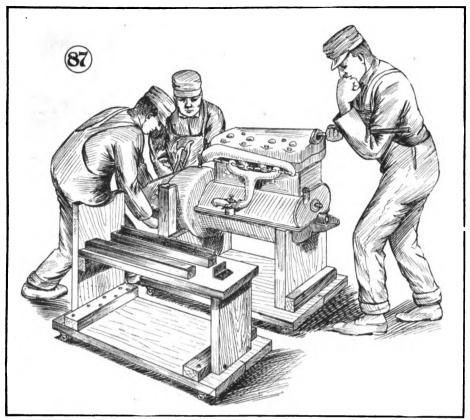


Fig. 87-Method used in turning the engine over. This requires three men

a high polish on the seat or valve.

9.—If the valve shows white on one side only, this is evidence that it is bent, and it should be replaced with a new one rather than trying to straighten it. If only slightly bent, it may be straightened by hitting it a slight tap with a hammer when it is on the seat.

10.—If only one side of the seat shows the white line, the seat is warped or distorted and should be reamed out with one of the valve reamers shown in a previous chapter.

11.—After a perfect seat is obtained, remove all the abrasive and wash the surrounding parts with gasoline to remove every particle of emery so that there will be no chance of its getting into the cylinder or down into the valve guides.

12.—The clearance between the lower end of the valve stem and the top of the valve should be checked up. The minimum distance is 1/64 in., and the maximum distance 1/32 in. The clearance should be kept as close as possible. If the valve is too short, it is recommended that a new one be used rather than trying to draw it out by peening, as the expense and trouble are not worth the difference, and a valve that is not peened is liable to last much longer than one that is peened.

13.—In case of a valve too long, it should be filed off, keeping the end of the stem absolutely square.

14.—The valves are then put in place with the springs and cups in place and the pins inserted in the stems with the use of a valve lifter, just opposite to the method of taking them out.

Assembling the Crankcase and Transmission Cover

1.—Felt gaskets were formerly used between the crankcase and the block and between the crankcase and the transmission cover, but these have now been replaced with cork gaskets to a large extent. These parts are furnished

standard from the factory or branches.

2.—Either shellac or cup grease may be used to coat the gaskets when assembling, but most of the larger stations and branches now use a heavy grease.

3.—Stand the cylinder block on its head on the upside-down engine stand.

4.—Put the crankcase gaskets in place with grease.

5.—Put the crankcase in position on top of the block.

6.—Insert four or six of the crankcase bolts, putting them through from the bottom of the crankcase to the top, so that the nuts will be uppermost when the engine is in its upright position. The nuts should be started on all of the bolts and the speed wrench used to tighten them up.

7.—The head of the right front bolt under the timer is just opposite, or with the head up and the nut down, as there is not room for the nut on top without shortcircuiting the No. 3 terminal of the timer when it is put in place.

8.—After the bolts are all tightened up evenly and as tight as possible, the cotters should be inserted.

9.—Turn the engine over onto the other engine stand. The turning is easily accomplished by inserting a bar in the outlet water hole on the cylinder head. One man can catch this in his elbow to act as a pivot and two other men can pick up the transmission end of the engine, turning it right over. For convenience, the two stands should be side by side and close together. See Fig. 87 for the method of doing this. This is only possible, of course, when the cylinder head is bolted in place.

10.—The gaskets between the transmission cover and the crankcase require a little more care and there are certain

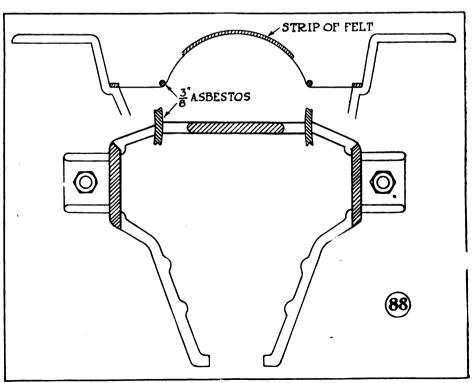


Fig. 88—Double packing at certain points between the transmission cover and the crankcase prevents oil leakage at these points

points as shown in Fig. 88 that require a double thickness of packing to prevent leakage of oil at these points.

11.—The lugs on the bands are still assumed to be held together with the U-shaped piece shown in a previous chapter, and the transmission cover can then be slipped into place by jiggling the pedals around a little till they drop down in the right place.

12.—Remove the U-shaped piece after the transmission case bolts have been inserted and tightened up. If any difficulty is had in lining up the bolt holes, a tapered drift pin will soon bring them into line.

13.—In adjusting the clutch and brake, a ratchet wrench saves a great deal of time over a solid wrench. This is made especially thin so that it can be easily put in or taken out. This is shown in Fig. 89.

14.—The slow speed band is adjusted by loosening the lock nut at the right side of the transmission cover and turning the adjusting screw to the right.

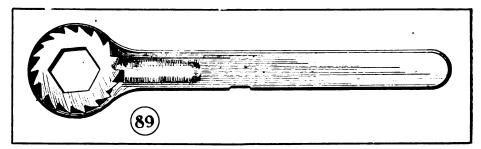


Fig. 89-Reverse and brake pedal tension spring ratchet wrench

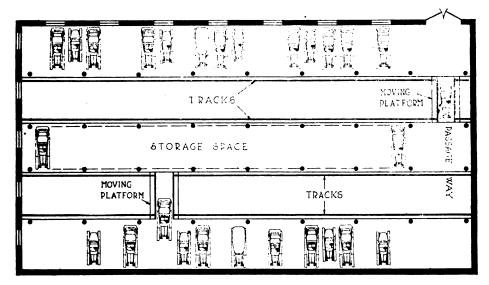
15—To tighten the brake and reverse bands, the transmission cover door is removed and the adjusting nuts turned to the right. The bands should not drag on the drums when disengaged as this will act as a brake and not only use up power, but produce a heating effect and also wear the linings.

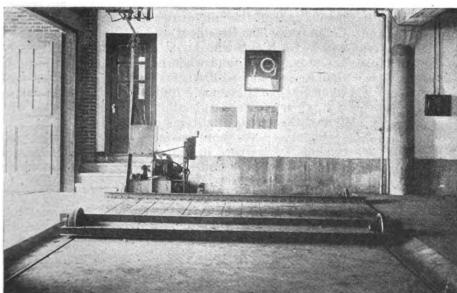
16.—The foot brake should be adjusted so that a sudden pressure will stop the car immediately or slide the rear wheels in case of an emergency.

17.—Replace the transmission cover door, using a new gasket.

The only parts now necessary for the complete assembly of the engine ready to put it on the test stand are the timer, the cylinder head, the fan with its belt and other apparatus, the valve cover doors and the manifolds. New gaskets should be used all around, and especially on the manifold gaskets, as a leak at this point will result in poor engine operation, especially at the intake.

A Transfer Truck Carries the Cars to Their Stalls in This Garage





A LONG-SOUGHT-FOR condition, that of being able to drive a car into a stall without backing and filling, seems to have been realized by the Traylor Motor Garage Co., Allentown, Pa. The cars are driven into the entrance door and onto a transfer truck which has wheels running on tracks, these tracks being crosswise to the car. The transfer truck is operated by an electric motor, and the operator runs the truck with its load opposite to the stall and the car is driven off the truck.

This all sounds very simple, and it is very simple. The truck was made in the garage and is nothing more than a strong platform with steel beams fitted with flanged wheels. The entire operating mechanism with a small platform for the operator to stand on is off to one side of the driveway of the truck. Current is taken from three overhead wires by a trolley pole.

A very similar device is made use of in many amusement parks to put the small cars on and off and into the houses where they are kept. The only difference is that in the case of the amusement parks the cars are small and the transfer trucks can be pushed around by hand, whereas in the Traylor garage the transfer truck is moved with an electric motor.

A controller similar to the ones used on street cars provides the control. The drive from the motor to the wheel which does the driving is by means of a chain.

The garage is so laid out that there are three rows of stalls and two transfer trucks are sufficient to serve these three rows. It is never necessary to back or turn the steering wheel, once the car in inside the garage door.

The upper illustration shows the plan of the garage and location of the moving platform, which is shown in the lower illustration.



Editorial Observation

No More Tire Guarantees

A RE you following the "No More Tire Guarantee" campaign that is running in Motor World? This week it opens on page 8.

This is a matter that concerns every man in the trade. It's something to which EVERY MAN should pay attention and is a chance for EVERY MAN to HELP.

We have all talked for years about the folly of tire guarantees. We have all said we wished they could be done away with. Well, the chance to do away with them is here, and the more we all get together the faster they'll go.

Therefore, YOU—no matter who you are—can contribute YOUR assistance by writing a letter to the company whose tires you handle or use—or all the companies—stating your opinion on the tire guaran-

tee question. And if you write, we would like to have a copy of your letter.

Writing a letter is a little thing to do—but a flood of letters on this subject will set forth the opinion in such an emphatic way that the end of the tire guarantee will not be long in coming.

Will YOU do YOUR part?

Thousands of letters written to legislators brought about prohibition. The same method will end tire guarantees.

And when you write, get your friends to write. Let every man get himself on record with an opinion on this subject. It's just like an election: If enough people vote for guarantee elimination the guarantee will be eliminated.

Will you do it—NOW?

Business in Government

I N all this hubbub about profiteering there seems to be a general impression that the retailer is at the bottom of the whole business. Maybe some dealers are taking rather long profits, but the probability is that as a class they are not as bad as some folks would have the world believe.

Last week in Motor World attention was called to the rather deceiving set of figures made public by the Federal Trade Commission. And here is another example of what some of our officials do NOT know about business. We take the statements from the Northwestern Miller, a flour paper:

It summarizes the cost of a barrel of flour as follows:

Guaranteed price of wheat per bushel $4\frac{1}{2}$ bu. of wheat to barrel of flour Cost of manufacture and sales	. 10.17
Total cost of barrel of flour at mill Deduct feed by-product	
Cost of flour at mill in bulk Cost of package Freight to New York Jobber's margin for handling Dealer's charge for selling and delivery	.60 .69 .75
Price to consumer	\$12.91

And then some one proposes that the Government buy flour from the millers at \$8 a barrel and sell it to the public at \$6. Another proposal is that the Government buy wheat at \$2.26, sell it to the millers for \$1.26 and bring the price down. The latter price for wheat would make flour cost the consumer \$9.05, which is far from the visionary \$6 a barrel.

One very significant fact in the recent address of President Wilson on the peace treaty was his recommendation of the bill drawn by the Capital Issues Committee. The President said: "It is a measure formulated by men who know the actual conditions of business . . .," and when he said that he said more than he perhaps realized, for is it not significant that comment like this should indicate that it is an exception when business legislation is framed by men who "know the actual conditions of business"?

When we have more business men and fewer politicians and lawyers in our capitals we shall have a sanity in business and a prosperity which can never come otherwise.

Let us forget party-ism in politics and let every man stand for "business in Government." You wouldn't hire a lawyer or a politician to run your service department, yet you, by unintelligent voting, send him to a still bigger job at a still bigger salary.

Let every business man from this day forward stand for BUSINESS IN GOVERNMENT.



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Decide Minors May Not Pay

Editor Motor World: Some time ago I sold a car to a young man who lives here in town. Although his father is known to be wealthy and honest, I have not been paid for the car yet. A few days ago I met him on the street and told him I thought it was time I was paid. He answered that I could have the car back any time I wanted it. A friend tells me that he is under age and that he doesn't have to pay me unless he wants to. Didn't you publish a case like this some time ago?—E. L. F. Binghamton, N. Y.

Answer-About a year ago I answered the inquiry of another dealer, which was in all respects similar to yours. At that time I said, and I repeat now, that in New York and in practically all the other states it is impossible for a dealer to recover from a minor the money due him in a case of this kind.

The contracts that minors may enter into, under authority or direction of law or in order to do what they are legally bound to do are valid, but as a garageman or dealer is unconcerned with contracts of this kind the safe thing for him to do is to decide that, so far as he is concerned, a contract with a minor is too serious a thing and, therefore, refuse to deal with minors.

Some contracts are held to be absolutely void and unenforceable, as, for instance, those the courts decide are without doubt prejudicial to the minor. The great majority of contracts made with such individuals, however, are neither good nor void, but are what are legally termed voidable, and may be either good or bad, according to the cirsumstances of each particular case.

In the case of voidable contracts a ninor may decide, when he becomes of age, whether he will be bound by the contract or whether he will disregard it, because of the fact that it was made when he was under age.

If the minor is inclined to be honest, ne will probably pay up. If he is othervise inclined, he will refuse to pay. The lealer can do nothing when the minor nakes up his mind this way. If he efuses to pay there is no relief for he dealer.

In an old Iowa case it was decided hat where the court could see the conract was for the benefit of the individual. is for necessaries, it was good. Howver, where the court saw that it prejudiced him, it was void, and in other cases where there was a question as to whether it was beneficial or prejudicial, it was voidable. This was the case of Green vs. Weilding, 59 Iowa 679, 13 N. W. 716, 44 Am. Rep., 696.

Under this decision dealers would be unable to recover any money due them under a state of facts like those set out in the inquiry above. The notes would be valueless and the dealers would have no right to a judgment, garnishee or otherwise, unless they could induce the young man that there was a moral obligation on his part to pay the bill.

The Kansas Lien Law Bill

Editor Motor World: Some months ago, Motor World printed a draft of a lien law that had been introduced in the legislature of Kansas or Nebraska. This law also provided for the registration and classification of automobile mechanics. Do you know whether or not this law has been passed? If you can give us any further information we shall appreciate it.-Garage Owners' and Automobile Dealers' Association of Illinois, 53 West Jackson Blvd., Chicago.

Answer-The bill you refer to is, no doubt, Kansas Senate Bill No. 152, which was published in full in Motor World on January 29, 1919. This was a very burdensome and drastic bill and I am glad to say that I believe it failed to pass. If you want any further information about it I suggest that you write direct to W. H. Imes, President Automobile Trade Association, Kansas City, Mo.

Question of Garage Permit

Editor Motor World: Some little time ago there was an article in your magazine relative to a decision in the Court of Appeals to the effect that where certain premises had been used for years as a livery stable, it had a right to obtain a permit as a garage. Will you kindly forward to us, if possible, the issue which had this in and send bill for same and we will remit.-Square Deal Auto Co., 71-73 Edward Street, Buffalo, N. Y.

Answer-We have been unable to find the decision you refer to, although we have examined the legal page as far back as 1914. It will not be necessary to find this decision, however, as if you will put the proposition you have in mind up to us we will be glad to advise you.

Value of the Legal Page

Motor World's legal page has now been published for nearly five years. During that time a great number of subscribers have taken advantage of its free service. Hundreds of letters have been published with answers to questions asked. A still greater number of questions have been answered direct

For some subscribers the articles, reports of cases, new laws enacted, and questions and answers published have constituted a liberal education in the law as applied to motor vehicles.

Have you derived any benefit from the legal page, or did you just read and for-

get?

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Try to answer the following questions and you will soon see if you should be asking questions. If you can't answer these or any others, don't hesitate to

- 1. Have you a lien law in your state? 2. Does it include storage, repairs, gasoline, oils, supplies, and accessories?
- 3. If you let a car go out of your possession, do you lose your lien?
- 4. Does a lien for storage or repairs or a seller's lien under a conditional sale agreement come first?
- 5. Have you the right to "retake" a car under a claim of lien?
- 6. Can you hold a car for an old bill if it again comes into your posses-
- 7. What would you do with a check marked "in full payment" if it was for a smaller amount than the amount of your bill?
- 8. If you sell cars what would you do if some other dealer sold in your territory?
- 9. Would you make a contract on Sunday?
- 10. Would you sell a car on credit to a minor?
- 11. Would you sign a contract without reading or understanding it?
- 12. Would you rather do business under your own name, under a trade name, as a partner, or as a corporation?

New Road to Be Built in Arkansas

LITTLE ROCK, ARK., Aug. 14-Contracts have been let for the building of the Batesville-Mammoth Spring highway, connecting North Arkansas and Southern Missouri.



SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

Plan No. 1

Two-Story Garage on Corner Lot

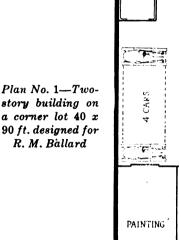
Character of Business—Sales, service, tires, accessories, gasoline and oil.

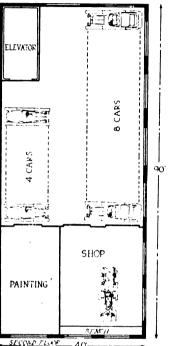
Details Wanted—Two-story building on lot 40 x 90 ft. to provide showroom, stockroom, office and facilities for light repairing on first floor; overhauling and refinishing on second floor; entrance on front and side.

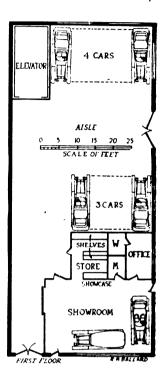
Name-R. M. Ballard, Lumberton, N. C.

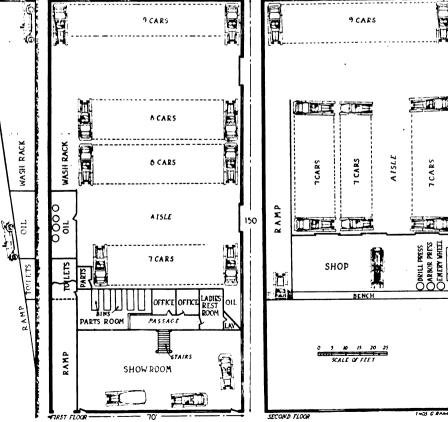
Answer—The plan worked out has been made to conform to the dimensions given, but we would advise you to obtain a slightly wider plot if possible, as a width of 40 ft. does not really give a satisfactory layout. Forty-five or 50 ft. would be better.

We do not see the necessity for a driveway through the front of the building, but have provided for one, as you requested it. It would appear to us that the side entrance would be just as satisfactory in every way, and the elimination of the front driveway would









Plan No. 2-Salesroom and service station for Thomas G. Rankin

give you just that much more space for your showroom.

Placing the showroom at the street corner will give an opportunity for two large windows, one on each street, which can be used to good advantage for display. By placing the accessory department at the rear of the car showroom it will be possible to make an effective display of accessories by means of a showcase. If you are to build with a driveway through the front of the building, it would be a good plan to have a large window in the partition between the accessory store and the garage so that a display of accessories may be made for the benefit of those who drive in and out that way.

Plan No. 2

For Sales and Service Chiefly

Character of Business—Car, truck and tractor sales; service

Details Wanted—Two-story building on 73-ft. inside lot located on an alley; stockroom, private office and ladies' restroom on balcony over rear of sales-room; main entrance from the alley back of salesroom; entrance to second floor by ramp from outside of building only.

Name—Thomas G. Rankin, Vincennes,

Ind.



Answer—The plan which you submitted is excellent. We have made only one or two detail changes in it. Because of the space taken up by the ramp we consider that it would be wise to use two entrances to the main floor.

The space under the ramp can be used, as you suggest, for toilets, washrack and oil storage.

An excellent feature of your plan, as you point out, is that the second-floor line is 4 ft. below that of the balcony over the salesroom, which gives you the advantage of being able to see from the private office into the garage at the rear of the first floor and into the shop on the second floor as well.

Plan No. 3

Two-Story and Basement Sales and Storage Building

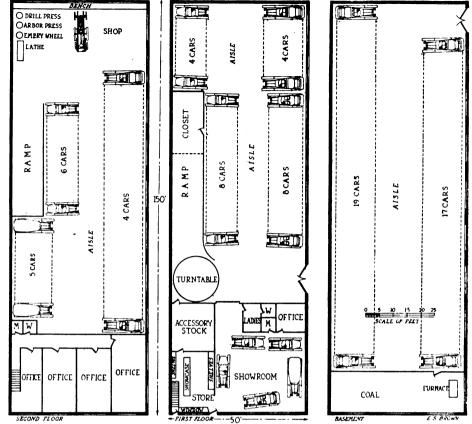
Character of Business—Car and accessory sales, storage and service.

Details Wanted—Two-story and basement building on plot 50 x 150 ft.; turntable and ramp to give access to second floor; showroom, accessory store, restroom, office and parts room; showroom to accommodate five cars; basement to be used for service, storage and furnace room; front of second floor to be used for offices to rent.

Name—E. S. Brown, Salamanca, N. Y.

Answer—We would not recommend the use of a ramp on such a narrow plot, but have shown one in the accompanying plan simply because you ask it. You will find that the car storage space will be rather cramped as a result. You will also find it difficult to swing from the ramp to the second floor without considerable maneuvering or the use of another turntable.

We have set aside the front end of the basement as the furnace in order to get it away from the point at which the driveway will have to be placed. This



Plan No. 3—Two-story and basement structure on a lot 50 x 150 ft. for E. S. Brown

gives a good clear space, large enough to accommodate thirty-six cars, if all is given over to storage.

The turntable is placed directly opposite the driveway into the first floor. This leaves the entire rear of the building clear for storage and at the same time provides ample space at the front of building for showroom, accessory store, stockroom, restroom and office. The accessory store should be divided from the showroom by a glass partition. The

placing of the door at the front of the building gives direct access either to the store or to showroom. Entrance to the offices on the second floor is provided by a separate door in the corner.

On the second floor you will note that the offices for rent are cut off completely from the space given over to storage and repairs.

Plan No. 4

Three-Story Garage Building

Character of Business—Garage, service station and accessories.

Details Wanted — Three-story garage, 59 x 140 x 65, with ramp or elevator; battery room, vulcanizing shop, stockroom, office, showroom; placing of cars, etc.

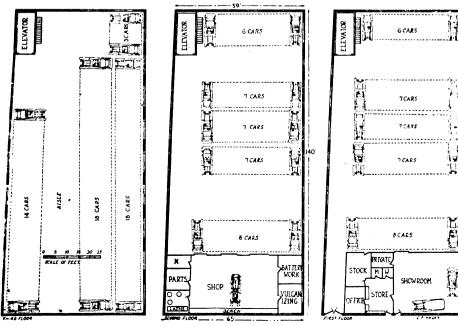
Name-C. F. Hagan, Uniontown, Pa.

Answer—The plan herewith is drawn as requested. We feel that an elevator will pay better than a ramp simply because it adapts itself so much better to the layout.

In case you are not familiar with the car arrangement please note that cars in rows B should be ones which leave early; those in row C, ones which leave late, and those in rows C, ones which cannot be so classified.

Linscott Sales Force Have Outing

BOSTON, Aug. 16—The annual outing of the employees who handle Reo cars, Republic trucks and various accessory lines controlled by James M. Linscott was held here.



Plan No. 4—Three-story building, having ramp and elevator, designed for C. F. Hagan

Repairshop Shortcuts

From Motor World Mechanics

No. 2251—A TIRE SPREADER

A tire spreader to hold a casing in such a position that work can easily be done on the inside is made from two pieces of 2 x 4 and two pieces of 2 x 6, the pieces being shaped up as shown in the illustration. When planed down, the lumber will be slightly under the rough dimensions and the working plan gives all the sizes necessary to construct the apparatus. The two sets of screen hooks give a range so that different sizes of shoes can be held in place, and the hooks should be bent slightly at the hook ends so that the bead will not slip off.—Paul Jacobs, Lincoln Double Tread & Vulcanizing Co., Lincoln, Neb.

No. 2252—MAKING THE TIRE GAGE HANDY

If the tire gage is soldered to a band which goes around the brass air connection on the air line, it will be handy at all times and will not be lost when most wanted. In order that the gage may not be damaged by throwing it around the floor or concrete pavement, it is best to protect it with a piece of rubber hose which will take all the hard knocks and keep the gage in working order.—Charles Angell, Angell's Garage, Alden, Mich.

No. 2253—PISTON CENTERING CHUCK

Piston-pin holes may be quickly bored, ground or reamed in a lathe by constructing a chuck which is a part of the regular face plate. The part of the device which plays the most part in getting the hole true is the V-block and this should be either of cast iron or steel, planed exactly parallel with the back which rests against the face plate. The piston is clamped against this, using ordinary lathe practice to center the hole, the straps and bolts being merely to keep the piston tight against the V-block. A hole cut in the strap allows the tools or reamers to pass through to the piston pin hole.-Karle A. Woodruff, Lamesh & Woodruff, Omaha, Neb.

No. 2254—CHASING THREADS WITH A NUT

Threads which are burred or slightly imperfect can be chased up by running a case hardened castellated nut on the bolt or shaft with the castellations first. The spaces in between form cutting edges much on the same principle as a die and if the damage is not too bad, the

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

threads can be brought back to good condition so that the regular nut can be started.—F. E. Patch, Webster Motors, Ltd., Sherbrooke, Quebec, Canada.

No. 2255—EMERGENCY REPAIR OF A NEEDLE VALVE

Where the seat of a needle valve is in such bad shape that it is impossible to grind it to a good fit and there is no new needle at hand, the end of the needle valve should be lightly coated with solder. This can be done by dipping the end of the needle in a pot of solder that

is hot enough to make a pine stick smoke, then dip the needle in soldering acid, then back into the solder. This should make the solder "take" and should leave a very thin coat on the end of the needle. To seat this, simply tap it lightly into its seat with a hammer, the soft solder conforming to the seat without any grinding.—V. M. Roberts, Mulberry Grove Auto Shop, Mulberry Grove, Ill.

No. 2256—TAKING A DENT OUT OF A TANK

A dent can be removed from a tank by soldering a tire valve to the filler cap, pumping air through the valve and then tapping lightly with a hammer around the edges of the dent. The pressure of the air will push the dent out level with the assistance of the hammer.—Philip Baker, Blairsville, Pa.

No. 2257—HANDY DROP LIGHT

A shop drop light is made by fitting a piece of wood to the rear of the socket, this to be the same diameter as the socket and with a hole drilled through the center to take the lamp cord. A piece of heavy leather encircles both socket and wooden piece, a hole having been cut for the key to extend through. The leather is fastened to the wooden piece with two rows of tacks and a hose clamp holds it to the socket. An ordinary wire cage lamp protector and a hook to hang it up by complete the outfit.—Otis Gibbins, proprietor, Modern Garage, Roodhouse, Ill.

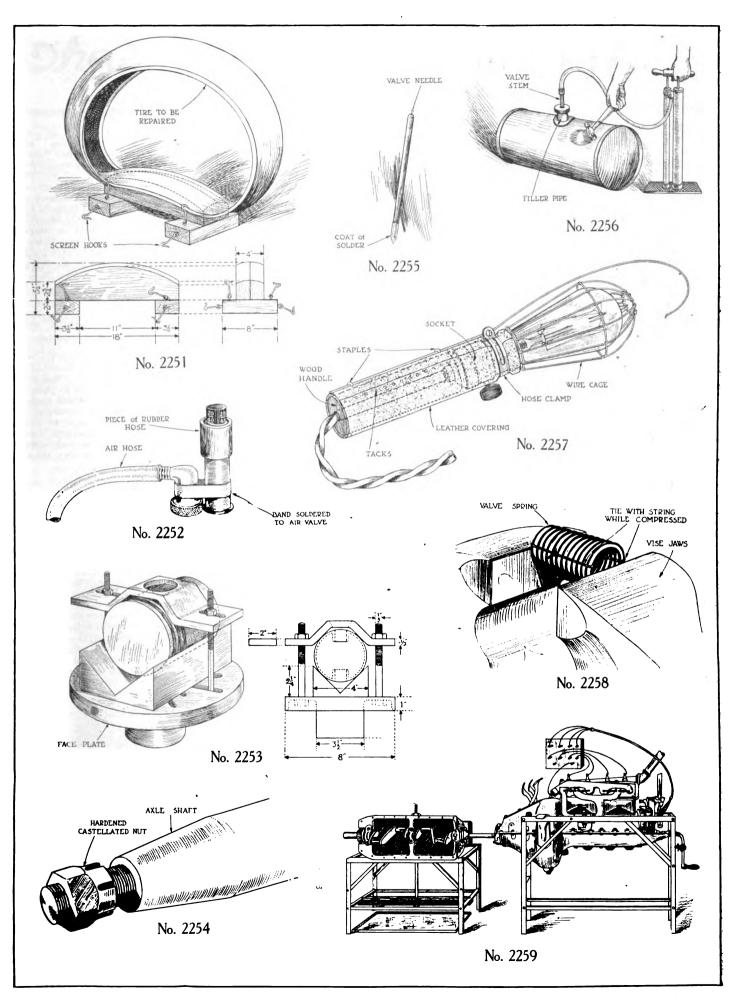
No. 2258—HOLDING A SPRING COM-PRESSED

A valve spring is compressed in a vise and while in this position is caught with a fine wire. The compressed spring may now be put in place, the pin inserted and the wire then cut.—John Christmann, Pirwitz Garage, Lake Mills, Wis.

No. 2259—BURNING-IN BEARINGS

Where no power is available, bearings may be burned in on a Ford engine by connecting up another Ford engine on a stand as shown in the illustration. An increase in power is obtained by using the low gear of the driving engine. When the bearings are burned in, the other engine can be run in oil, using the high gear.—J. C. Trapp, service manager, Lawrence B. Ross Corp., S. A., Havana, Cuba.





Automotive Equipment

J. & B. BODY BUSHING RE-MOVER

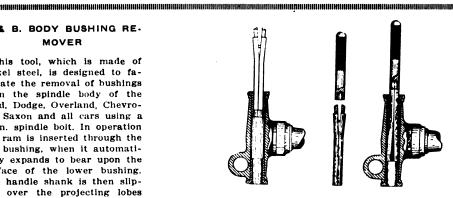
This tool, which is made of nickel steel, is designed to facilitate the removal of bushings from the spindle body of the Ford, Dodge, Overland, Chevrolet, Saxon and all cars using a ½-in. spindle bolt. In operation the ram is inserted through the top bushing, when it automatically expands to bear upon the surface of the lower bushing. The handle shank is then slipped over the projecting lobes of the ram and a few light taps with a hammer serve to remove The equipment the bushing. has a rust-proof finish. Price \$1. -J. & B. Mfg. Co., Pittsfield, Mass.

FEUMORT FIRE EX-TINGUISHER

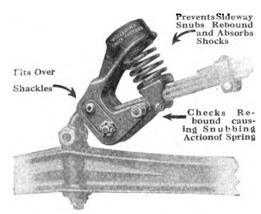
This is a fire extinguisher in the form of a dry powder contained in a box with simple directions for operating. It is composed of chemicals which, while harmless to fabrics and all other materials, have the property of extinguishing a blaze by shutting off the oxygen supply from the surrounding air. The container holds 1 qt. of powder, said to have the same extinguishing power as 41 gal. of water. Price \$3.-Feumort Mfg. Co., 160 Fifth Avenue, New York City.

UNIVERSAL REBABBITTING AND REBORING JIGS FOR FORDS AND FORDSONS

This equipment is for Model T Fords, Fordson tractors or a combination outfit for both the car and tractor. It includes a furnace, firepot, metal pot, tool ladles, babbitting jig and a selfaligning boring bar with clamps. The babbitting jig is also selfaligning and made up of three split bearing moulds and a bar. It provides 1/32 in. of metal for finishing all bearings. No cutting is required to release it after the metal has become solid, and furthermore, metal is prevented from entering the tapped bearing stud-holes. The fixture which aligns the boring bar gets its location from the camshaft holes. This is accomplished by a solid bar that extends the entire length on the outside at both ends of the cylinder casting. The locating arms also act as the bearing for the boring bar. The boring bar has three cutters so arranged that all three bearings are machined in one operation. A duplicate set of cutters is part of the standard equipment. It re-



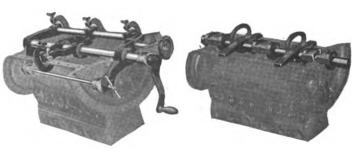
J. & B. body bushing remover



Wolverine shock absorber



Steere-Kitson stock units



Universal rebabbitting and reboring jigs

quires about 10 min. of turning to complete the bores. Either automatic or manual feed can be used, this being accomplished through a cam on the boring bar. The feed screw advances .010 in. per revolution and has a rapid return of 4 threads to the in. The cutters are inserted in the bar and held in place by headless set screws. Price \$12) for Model T outfit; \$175 for tractor outfit and \$200 for combination outfit.-Universal Tool Co., Detroit.

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WOLVERINE SHOCK SNUB-BER FOR FORDS

This is a coil spring shock snubber which is inserted over the spring shackle. The fastening device is such that side sway is prevented and the shock absorption and rebound snubbing is taken care of by the coil spring, which operates between the cap and the leaf spring.-Wolverine Clutch Co., Hastings, Mich.

STEERE-KITSON FORD STOCK UNITS

This is a system that puts a service institution behind the stock counter. Each unit is complete in itself and is put together much after the fashion of the sectional book-case. It is designed to meet the various requirements in size and volume of the parts carried. The units are numerically arranged following the Ford parts and accessory lists, each number having a bin by itself. Standard systems are 11 units, 28 units and 42 units. They are finished in Dado grey with numbers stenciled in black or per specifications. The Steere-Kitson co., 36 Brush St., Detroit.

SAFETEE GLASS

This product consists of glass backed by a sheet of Pyralin 1/50 in. thick, the two being cemented together under great pressure so that there is no chance of their coming apart. The Pyralin holds the piece of glass in place when the glass is shattered and prevents flying pieces or splinters. In addition to preventing flying splinters. the flexible coating strengthens the glass, makes it more impervious to cold and frost and glass which is broken is still proof against wind, water and oil. It may be used for windshields, goggles, windows, etc.-Super-Glass Co., Philadelphia.



The RETAIL NEWS

NORTHWEST

Kallem & Eittreim, Ellsworth, Ia., have sold their garage to England & Reagon of lowa Falls.

Bramley & Meyer, Little Rock, Ia., have sold their garage to Henry F. Schemmel & Sons.

Ed Manning, Mt. Pleasant, Ia., has sold his accessory business to Wm. Ester.

The Harter-Bulck Co., Keokuk, Ia., held a formal opening of their new building on July 24.

Fred C. Seizer and C. H. McLurkin, Morning Sun, Ia., have sold the Burlington Way Garage to Leonard Martin and Joe Schofield.

R. M. Boyce, Shenandoah, Ia., has purchased the Shenandoah Tire & Rubber Co. from David Larson.

The Stanton Mercantile Co., Stanton, Ia., has purchased the Stanton Implement & Auto Co.

Fred Stephenson and Clarence Flanders, Oskaloosa, Ia., have purchased the interest of their partner, T. T. Littlefield, in the Oskaloosa Garage Co.

Burton Bolton, Denison, Ia., has bought a half interest in the Davis Battery Service Station

E. L. Frye, Fairfield, Ia., is building a garage, three stories in height, 66 x 66. He is Hupmobile distributer.

J. L. Ciarke, Clinton, Ia., has taken the agency for Oldsmobile for this territory.

Clinton Oakland Co., Clinton, Ia., has opened a salesroom and service station at 515 S. Second Street.

W. M. Pelton, Clinton, Ia., has opened a garage at 516 North Second Street.

Clinton Battery & Electric Co., Clinton, Ia.,

has opened a service station and salesroom at 311 South Second Street.

The Liberty Motor Sales Co., Clinton, Ia., has been formed here to sell the Liberty car.

Dayton & Smith, Clinton, Ia., have opened a garage at 11th Ave. and 5th street.

Midwest Auto Supply Co., Dubuque, Ia., has opened offices and salesroom at 727-737 Iowa street.

The Cadillac Co., Dubuque, Ia., has opened a service station and salesroom at 820 Iowa street.

Exide Battery Co., Dubuque, Ia., has opened a service station at 16 Eighth street.

The Star Taxi Co., Dubuque, Ia., has opened a used car department.

Apperson Nunemaker Co., Cedar Raplds. Ia., has opened a garage and salesroom at 207-211 South First street West.

The West Side Tire Exchange, Cedar Rapids, Ia., has opened a salesroom and shop on South First street.

O'Brien & Sons, Cedar Rapids, Ia., have opened a tire service and vulcanizing station at 117 First avenue.

Chambers & Belote, Cedar Rapids, Ia., have opened a welding shop and service station on Third Avenue East.

SOUTHWEST

J. L. McManus, Clinton, Mo., has opened a shop for the repair of radiators, starters, generators and magnetos, at 128 North Main street.

A. F. Anderson, Herington, Kan., has opened a repair shop.

A. P. Geller, St. Genevieve, Mo., has opened an automobile repair shop.

C. B. Long, Kansas City, Mo., has taken charge of the battery service department of the Exide sales and service station at Bartlesville, Okla.

The Southwestern Supply Co., Oklahoma City, Okla., will open a tire and supply house in Weatherford, Okla.

The Haller Auto Co., Victoria, Tex., is planning a new salesroom and garage. The company has the agency for Cleveland and Chandler cars.

The Noien-Stringer Sales & Storage Co., Wichita Falls, Tex., is a new firm which will handle the Haynes car and do an automobile storage business.

Leonard & Tembrink Tire & Repair Co., Dodge City, Kan., has opened a branch in Larned, Kan., with E. S. Kennedy manager.

The Tulsa Auto Mfg. Co., Tulsa, Okla., has been chartered with \$500,000 capital stock by R. M. McFarlin, R. O. Holleron, and A. H. Rogers, all of Tulsa.

The Hampel Motor Co., Hutchinson, Kan., will erect a three-story building on Second avenue.

The City Garage, Coalgate, Okla., has taken the agency for the Dort car.

George H. Deltrich, Parsons, Kan., has secured the agency for the Liberty automobile.

The Ottawa Buick Co., Ottawa, Kan., has opened under the management of V. Lindberg.

The Davis Motor Car Co., Dublin, Tex., has opened and is handling the Willys-Knight and Overland cars.

MIDDLE WEST

The Roche Tire & Supply Co., Grand Rapids, Mich., has opened for business.

Tygh & Crawford, Grand Rapids, Mich., have been named Western Michigan distributer for the Hollier Six. The firm has just moved into new salesrooms.

The Union Garage Co., Lansing, Mich., has opened a store to carry parts for Oldsmobile and Cadillac cars.

Herbert Watkins has been appointed manager of the Paige Sales & Service Co., Detroit.

J. R. Murphy, Grand Rapids, Mich., has joined the sales force of the Columbia Auto Sales Corp., distributer for Columbia cars in West Michigan territory.

O. G. Roberts, Columbus, O., will erect a salesroom, garage and service station at Jefferson avenue and Long street. Work will start at once. The structure will be 123 by 150 ft., two stories high.

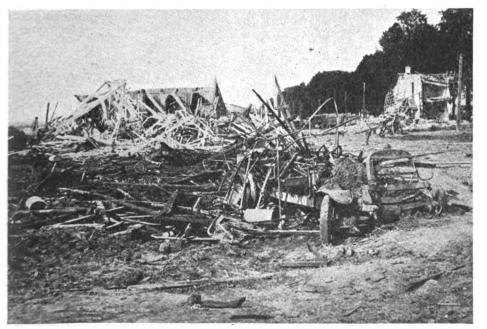
Lawwell-McLeish Co., Columbus, O., will build a garage and salesroom at Fourth and Elm streets. The structure will be 122 x 63 ft.

Kokomo Tire Co., Kokomo, Ind., has established a branch in Columbus. O., at 122 East Long street, under the management of E. M. Hunt. The Columbus territory will embrace 30 counties in the central part of Ohio.

Ohio Savoid Tire Co. has opened its Columbus branch at 80 East Gay street, with Edward J. Cogger, formerly with the Pennsylvania Rubber & Supply Co., Columbus, as manager.

William L. Marshall, Columbus, O., who has been vice-president and manager of the Twyman Motor Co., has purchased all the stock of the company and will continue in the jobbing business. The principal owner was B. W. Twyman, connected with the Inter-State Automobile Co.

Aviation Field Wrecked by Explosion



The wreckage shown above is that of the Bourget aviation field, near Paris, after an explosion of munitions. In the foreground will be noticed the remains of a Berliet 3-ton truck

C. H. Briggs, Evanston, Ill., has taken the agency for the Columbia Six and Maxwell for this territory.

F. S. Johnston & Co., Evanston, Ill., have opened a salesroom at 514 Davis street.

Hart's Tire Service, Evanston, Ill., has opened a sales agency for Oldfield tires at 1555 Sherman avenue.

North Shore Automobile Co., Evanston, Ill., has closed for the agency of the Lexington and National. Quarters have been secured in the North Shore Hotel building.

Russell's Garage, Kenosha, Wis., has been opened at 603 Milwaukee avenue.

Barber's Tire Hospital, Kenosha, Wis., has opened for business at 224 Park street.

Economy Auto Supply Co., Kenosha, Wis., has opened an accessory and tire depot at 167 Market street.

Kenosha Auto Parts & Supply Co., Kenosha, Wis., has opened a shop and sales-room at 254 Church street.

The Crown Auto Co., Peoria, Ill., has been sold by the Moutier brothers to Freeland & Lehman.

The Crown Auto Co., Eureka, Ill., will continue to be operated by the Moutier Brothers, including the three from the Peoria firm, J. Louis, Frank L. and William A. Moutier as co-partners with Andrew G., Robert J., and Bertram G. Moutier.

Becker's Garage, Highland Park, Ill., has opened a used car department.

The Winnetka Garage, Winnetka, Ill., has moved into its new building.

Colwell Storage Battery Co., Kenosha, Wis., has opened a new Willard station at 214 Exchange street.

Dewey Hardware Co., Kenosha, Wis , has been appointed distributer for Brunswick tires here.

Douglass & Shea, Waukegan, Ill., have opened an Exide battery service station at 106 South County street.

Achen & Wells, Waukegan, Ill., have opened a salesroom for Paige and Allen cars at 217 North Genesee street.

Colwell Storage Battery Co., Waukegan, Ill., has been appointed Willard battery distributer for this territory.

Wilson & Ohm, Waukegan, Ill., Ford distributers, are featuring tractors in this territory.

The Lansing Tire Co., Lansing, Mich., has completed the enlargement of its showrooms and storage space to more than double its original capacity.

CANADA

A. F. Brunner, Riverhurst, Sask., has built a new garage and taken on the agency for Chevrolet cars.

Motor Sales Co., Halifax, for some time local representative of the Cleveland Tractor Co., has been appointed distributer for the entire province. G. A. Corry, formerly with the International Harvester Co. in the Maritime Provinces, has been appointed manager of the tractor department.

Norton & Leif, Calgary, have taken the agency for the Cleveland Tractor Co.

A. G. and P. A. McCandless, Vancouver, B. C., representatives of Diamond T trucks in the province of British Columbia, will soon be in their new premises at 654 Howe street.

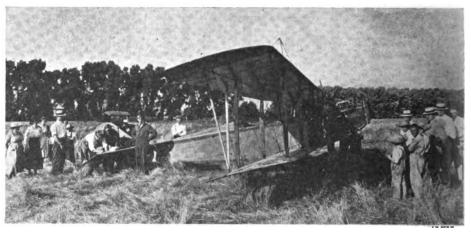
David Langhoffer, Saskatoon, Sask., proprietor of the Ray Garage, will be in a new building 50 x 160 ft., on First avenue, shortly.

PACIFIC COAST

W. H. Banes, Portland, Ore., has been appointed Oregon-Washington distributer for Peerless piston rings.

The C. M. Harrison Co., Portland, Ore., has been made dealer for Swinehart tires.

F. L. Jepson, for two years district sales manager for the Willard Storage Battery Co.,



Signing up a dealer by airplane is an achievement boasted of by the J. T. Stewart Motor Co., Omaha. Learning at 6 o'clock one evening that a newly organized firm in Fremont, Neb., was in the market for a passenger car and truck contract, Stewart rented a plane and, putting B. H. Salyers, a salesman, aboard, sent him away at 7.30 the next morning in quest of the contract. Salyers was back with it an hour and 20 minutes later

with headquarters in San Francisco, has resigned to go with the Southwell-Hunter Auto Co., Stockton, Cal., distributer of Chandler and Cleveland cars.

Dean T. Goodman, for several years traveling representative for the Goodyear Tire & Rubber Co.'s Portland, Ore., branch, has purchased a half interest in the Heppmer Garage, Heppmer, Ore., from Vaughn & Son. It will be continued under the old name.

Markham & Purser, Oakland, Cal., have secured the agency for the Oldsmobile for Alameda County and have opened sales-rooms and service station at 2853 Broadway.

Byrne Kingston & Co., San Francisco, Cal., and the Kokomo Electric Co., of Kokomo, Ind., have established Pacific Coast head-quarters at 1235-1237 Van Ness avenue, with Fred L. Houston as manager.

Albert Stevens, San Francisco, has opened an automobile sales and service station at 338-340 Fell Street.

The Francis-Stoil Co., San Francisco, has secured the selling agency of the Berry spark plug from the American Register Co., of Emeryville, Cal., and opened salesrooms at 1235-1237 Van Ness avenue.

Charles J. Andrews, Huntington Beach, Cal., has purchased the Arrow Garage.

Edgar T. Burditt, Long Beach, Cal., has opened the Quick Tire Service Co., at 209 East Third street.

F. G. Musso, San Jose, Cal., manufacturer of the Auto-Home camp bed, has leased the premises at 190-192 West Santa Clara street, San Jose, and is having it remodeled. Over 5000 sq. ft. have been added.

V. Koch & Son, San Jose, Cal., have secured agencies for the Elgin, Haynes and Allen cars,

S. Hubbs and B. F. Brisac, operating the Mission Garage, Santa Cruz, Cal., have secured agencies for the Reo, Chalmers and Franklin cars.

Ivan R. Gates & Co., San Francisco, Cal., have moved their used car salesrooms to the old Pioneer Building on Van Ness avenue, near McAllister, in San Francisco.

Mortimer Jesurun and J. M. Blackburn, Palo Alto, Cal., have purchased the Palo Alto Garage and are erecting a reinforced concrete garage building.

The Crick Automotives Co., 1114 Van Ness Avenue, San Francisco, have secured the distributing agencies for the Elgin Car, Menominee Truck and Sunshine Tractor.

B. D. Davis, San Francisco, operating as the Coast Auto Co., has enlarged and remodeled the used car salesrooms at 613 Van News avenue.

The Olympic Tire & Vulcanizing Co., San Francisco, has opened a tire store and vulcanizing shop at 753 Post street, specializing on Stronghold Tires.

Y. Wulff, Oakland, Cal., has purchased an interest in the tire business at 2127 Broadway, and become partner with Walter E. Hyde, under the name Hyde-Wulff Tire Co.

Konrad & Nelson, San Mateo, Cal., have opened a repair shop at 355 B Street, and will handle the Maxwell Car.

The San Jose Tractor & Truck Co., San Jose, Cal., with offices at 445-449 West Santa Clara Street, which has been handling the Yuba tractor during the past year, has added the Denby truck to its line and will also handle the Killefer tractor tools. Oliver chilled plows and Schmeiser earth moving machinery.

Staffler Bros., Santa Cruz, Cal., have purchased and are operating the Beach Garage and Casa Del Rey Garage in that popular California resort.

Zamzow & Strite, Santa Cruz, Cal., have opened a tire and automobile repair shop at 22 Water Street, under the name of the Yellow Front Auto & Tire Repair Shop.

NEW GARAGES

The Yorton Sales Co....Three Rivers, Mich. Bert E. Dunn (10 x 120)......Racine, Wis. Otto Schlenter (50 x 100).....Cascade, Wis. Jacob Arnold (45 x 120).

Menomonee Falls, Wis Redner & Essen (40 x 60)...Milwaukee, Wis Stanley F. Kadow (70 x 110),

Milwaukee, Wis.

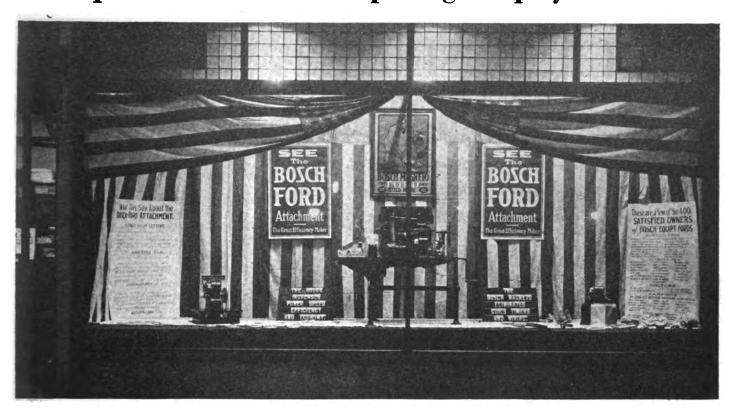
American Garage.....Tulsa, Okla.

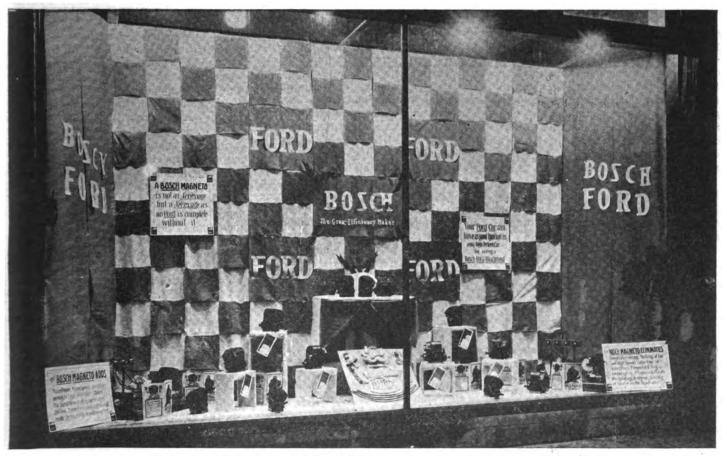
A. D. Motor Co.....Claremore, Okla.

Heath Garage......Commerce, Tex.s

Jenkins & Sheer (100 x 110),

Stripes and Checks Compelling Display Features





These windows, in states separated by many miles, were used with striking success to advertise a single product—the Bosch Ford magneto attachment. The upper picture was in the showroom of the Hackett-Harvey Co., Bloomington, Ill., and the background was made of American flags, having a patriotic touch to correspond with the Independence Day season. The lower picture shows a window at the Motors Parts Co., Philadelphia, with purple and white the dominant colors



DO YOU "DOPE" YOUR BUSINESS?

Chart your sales, find out which are your dull months—and why—and get your thinking machinery working to make the whole year a rush sales period

O you know what is your busiest month, and which one of the twelve is the dullest? Do you know it actually, with the figures in black and white before you, or do you carry the idea in your head, merely as an impression and as you remember it, that, at a certain time of the year, your sales hit the peak and that, at some other time, they drop off to the lowest level?

The keen business man, who seeks every possible means of bettering his yearly returns, can tell to the fraction of a per cent the totals for each month of the year. He has been forced to this because of the necessities of planning his business, of ordering his stocks, of preparing his sales campaigns, of doping out his advertising and his window displays, and of trying to force up the dropping curve of sales as the minimum months come around.

Every automobile dealer should have his charts so made that he can tell how much business was transacted each month in each of the following departments:

- 1. New car sales.
- 2. Used car sales.
- 3. Truck sales.
- 4. Accessory sales.
- 5. Tire sales.
- 6. Repair work.

Many firms already have worked out these tables on an elaborate scale and can forecast for months in advance, because of the completeness of their figures, the business to be expected of any particular period. Factories, jobbers and large distributers particularly have set the pace in this respect, but hundreds of smaller dealers and repair shops have not considered the smaller figures of their own trade as meriting such a close scrutiny. No business is so small that this "dope sheet" is unnecessary.

Actually, it is simple to prepare the required charts, provided the proper methods of accounting are used in bookkeeping department. Take the total business in each of the suggested lines for the year; then find out how much of it was done in each of the twelve months. It is easy to balance one against another and to see which is the maximum and which the minimum, with the ups and downs of the curve between them. If you have never done this before, then do so for several years back—the more the better and form a composite chart, averaging the twelve month periods, so that a balance is struck, thus eliminating chance of fluctuations due to local or unusual conditions of short duration.

The chart shown here is taken from the Tire Rate Book, published by the company that issues Motor World, giving the fluctuating curve of tire distribution, prepared from figures furnished by three representative tire factories. It is reproduced as a model upon which other charts may be based and illustrates the manner in which they may be prepared. The percentage by month follows:

	Per	Cent
January		9.8
February		8.3
March		10.2
April		8.3
May		9.8
June		10.1
July		10.5
August		9.6
September		7.2
October		6.4
November		4.8
December		4.8

Probably you already knew that the months of November and December were the slack months of the year in the tire business. But did you know the difference in actual amounts so

HAVE you ever "doped" your business, as is suggested in this article?

If you have, what are the benefits you have derived?

Will you send your percentage figures to MOTOR WORLD, with your analysis of them? Let's do it now!

that you could intelligently prepare your advance orders and lay out whatever advertising plans you may make?

The chart would indicate, upon study, that stocks are allowed to decrease in time for the annual end of December inventories and then in January are rebuilt for expected later business. Or the larger sales in the first month may be due to winter driving, tires needing replacement after the bad weather conditions of the earlier cold months. Perhaps the January figure given here is not indicative of your own individual business, but do you know that it is not?

Then comes March, with its totals the second largest of the year. What does that mean in an analysis of your business? Is it that cars are being taken out of winter storage and prepared for the spring and summer driving. Tires must be changed so that those worn out in the late fall and left on during the winter may be replaced possibly, is the answer. Anyhow, indicating that some such demand may be expected about that time gives the dealer an opportunity to prepare for such trade.

If his business has shown those curves, why should he not in February begin his form letters and his newspaper advertising to draw in this demand to his salesroom? Knowing beforehand that March will show a big demand, if such be the facts in the individual business, plans may be made beforehand to capture the dollars flowing about. This should suggest many business-getters for the man who seeks to increase his profits and who is willing to use his brains in going after it.

Better selling methods to-day, for the retailer and particularly the man with the smaller capital, require quick and frequent turn-overs of the invested capital. With a chart showing actual trade, the ordering of stock should be simplified and the time of holding it on the shelves decreased. Certain volumes are shown for stated periods—purchases should be made in conformity with those demands and not greater or less. And they may be planned beforehand, with reasonable certainty that no mistakes will be made.

The best method of advertising to-

day call for it during the slack times, when business does not have to be forced. Does not the chart show when such trade pullers can best be utilized to overcome the stagnation of the lower periods? Advertising campaigns, which, of course, include window displays, can thus be arranged in advance and the chart, as later made up, will show whether or not they have been worth-while.

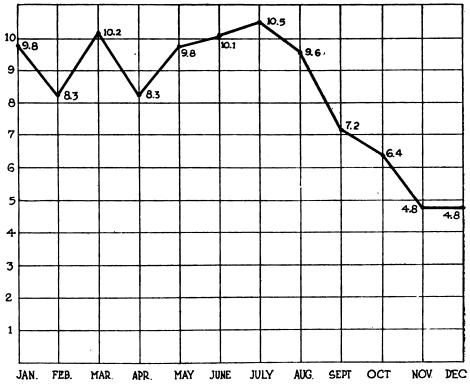
Analysis of your work offers many opportunities, chief of which is that experience of past years points the way of the future.

Every line should thus be looked into and a study of it made. There are countless things that it should reveal and, with thought, point out the means of correction. To be fore-warned is to be fore-armed and affords the chance of advance preparation.

List as Many Details as Possible

Get the figures for as many parts of your business as you can. If you can make it more detailed than is suggested here, do not fail to do so. Many obscure causes, pointing the way to greater turn-overs and quicker profits, will become clear to you and you will be enabled to take the better advantage of their recurrence. You will see many things previously hidden and many new pointers and ideas should come to you.

Take the charts and the figures at your desk or table. Think them over, balance one against another, and with your experience and knowledge of both



Tire Rate Book chart, showing fluctuations of distribution throughout year

local and general conditions, "dope" out just what have been the reasons for the fluctuations from month to month. Then study them and decide what can be done to change them and make them higher, with the totals greater in the maximum months and the minimum less far away from the neaks.

Do this without delay and think hard over the results you obtain. But do not believe that the mere preparation of the chart will bring about any of the desired results. The chart will only point out means by which your own industry and intelligence may bring about better business and greater profits.

Electrical Equipment Book

CHICAGO, Aug. 14—The American Bureau of Engineering, Inc., has just published a book on the "Ford Standard Electrical Equipment," giving detailed information on the electric starting and lighting system, which is now part of the standard Ford equipment.

Automobile Day at Quebec Exhibition

QUEBEC, PQ., Aug. 16—An Automobile Day is under contemplation in connection with the Quebec Provincial Exhibition at Quebec.

Silvex Buyers' Guide

SOUTH BETHLEHEM, PA., Aug. 14—A Buyers' Guide, listing the spark plug sizes for passenger cars, commercial cars, motorcycles and tractors, has been published by the Silvex Co.

Acme Issues New Folder

CADILLAC, MICH., Aug. 14—A new folder illustrating completely equipped trucks, ready for operation, has just been brought out by the Acme Motor Truck Co. here. This company is now specializing in the construction of trucks with bodies made at the factory.

Penn-Clay Co. to Represent Jordan

WILMINGTON, DEL., Aug. 14—The Penn-Clay Motor Sales Co. has been formed to operate a service station and sales agency at Pennsylvania Avenue and Clayton Street. It will act as state distributer for the Jordan car. The garage has a capacity of 125 cars. W. A. McDonald is president; W. B. Jewell, vice-president; Cornelius Mundy, treasurer, and R. Linwood Bashiell, secretary. George Ogle will be service manager.

Hudson and Essex Dealers Entertained

HARTFORD, CONN., Aug. 14—Hudson and Essex dealers in Connecticut and western Massachusetts were the guests to-day at Riverside Park, Springfield, of The Harrington Hudson Co. of Hartford and J. S. Harrington, Inc., of Springfield. Nearly one hundred distributers were present at the clambake

Transcontinental Flight Starts

NEW YORK CITY, Aug. 16—The first airplane of the All-American Pathfinders' squadron left Hazelhurst Field, L. I., yesterday at 2 p. m., starting on its transcontinental flight to San Francisco. Lieut. Kenneth C. Leggett, of the Department of Aerial Information, was

pilot, and Lieut. Carl D. Gunther, of the same department, was observer. This machine will act as pioneer for the seven other machines of the squadron, reporting back by wireless Under present plans four more airplanes will start today and the other three to-morrow.

A truck train carrying provisions and equipment and pilots will accompany the squadron.

Cressy Brothers Buy Factory Branch

DETROIT, Aug. 14—Cressy Brothers will hereafter have the sale of the Wedgerite piston ring in this territory. The direct factory branch of the company has been purchased by the firm.

Mutual Motors Equipment Coming East

JACKSON, MICH., Aug. 14—Removal of the Mutual Motors Co. from Jackson to Tonawanda, N. Y., is now under way. About 75 per cent of the equipment is on the way East.

The company ended its operations here one year ago. At a receivers' sale the equipment of the plant and the store of parts were purchased by Buffalo, N. Y., capitalists. The company manufactured the Marion Handley, Marion and Imperial cars.



News Letters From Trade Centers

KANSAS CITY

Sends Truck Caravan

KANSAS CITY, MO., Aug. 16—Trucks held the center of the stage in Kansas City this week when, on Aug. 13, 20 trucks, loaded with flour, coal and other commodities, paraded the streets, accompanied by officials of the Chamber of Commerce and the Good Roads Association of Greater Kansas City. Thursday morning the trucks started for the Missouri State Fair at Sedalia, the loads to be delivered to customers of shippers in that city.

Truck dealers, at a dinner given the previous week by the Firestone Tire & Rubber Co., entered heartily into the plan for the truck caravan. The meetings of truck distributers, while arrangements for the caravan were being made, have encouraged the distributers to closer co-operation. While there is no prospect of a separate organization of truck dealers here, it is likely that truck interests will have a larger part in the activities of the Motor Car Dealers' Association, to which they belong.

The Secretary of State of Missouri is supplying as desired copies of application of transfer of certificate of registration, with copy of the law concerning such transfer. The law says that when a motor vehicle is sold, the seller shall write his name on the back of his registration certificate; the buyer shall write his name under that of the seller, both signatures to be written in the presence of an officer qualified to take acknowledgment of deeds, such officer to sign as witness. The seller shall then notify the Secretary of State of the name and address of the buyer; and the buyer shall within five days inform the Secretary of State of his purchase, giving name of seller and business address, if known, and the number under which the vehi-cle is registered. The buyer also sends the Secretary of State 50 cents, and the certificate with its signatures—and the secretary notes the change of ownership on the registration books, and endorses the transfer on the certificate. Certificates of registration must be shown, under the law, to any peace officer who asks to see them.

W. B. Roberts, Jr., recently associated with the Dyer distributing agency of the Republic Truck Co. at Salina, Kan., has been made Southwestern factory representative of the Bessemer Motor Co., and is appointing distributers in the territory.

P. H. Talbot, branch manager of the Kansas City Firestone office, has been made district manager, and Dave Rosser, formerly factory representative, becomes branch manager.

The Western Auto Supply Co. has opened a new store at 1422-24 Grand Avenue. The company has stores in Dallas, Denver, Phoenix, Los Angeles, San Francisco, Fresno, Stockton and Seattle

Charles D. Ashley, Jr., and Fred Greenlaw have organized the Moon Kansas City Sales Co., for retail sales of Moon cars in Kansas City.

The Western Automobile Supply Co. is getting fixed up in its new three-story home at 1422-24 Grand Avenue.

The Vesper Motor Co., Reo distributer from Oklahoma City, will open shortly in the Traders Building, pending completion of its own building.

The Jackson Motor Co. will distribute the Saxon, the Pioneer Motor Co. concentrating on the Scripps-Booth.

The Noyes-Killey Motor Co has taken distribution of the Liberty for Kansas and Western Missouri.

WINNIPEG

Short of Cars

WINNIPEG, MAN., Aug. 16—A shortage of automobiles, in which practically all makes are included, is creating a difficult situation for dealers throughout western Canada. Many of them are unable to make delivery of cars which have been ordered for weeks, and the Winnipeg strike situation of the past six weeks has practically shut off the supply.

Recently T. G. Breen completed a contract with the Chevrolet Motor Co. of Canada, Ltd., for nearly \$1,000,000 worth of Chevrolet cars for 1919-20. The Breen Motor Co., Ltd., has been distributer of Chevrolet cars since 1915.

The Chevrolet Motor Co. is opening a factory branch here to take care of the whole northwest. It will be in charge of F. F. Guscott.

W. G. Pollock has sold his newly built garage, corner of Davidson Street and Mountain Avenue, Neepawa, Man., to H. R. Rutledge, and also his agency for Overland cars.

The Neepawa Garage Co. now has two garages in Neepawa with agencies for McLaughlin, Chevrolet and Maxwell cars. It also will handle Nicholls-Sheppard threshers, Fairbanks-Morse lighting plants, Wallis tractors, J. I. Case engine plows, and Fairbanks-Morse tractor, special separator and other lines.

ST. LOUIS

Car Shipments Slow

ST. LOUIS, Aug. 15—St. Louis dealers are now confronted with the problem of getting their cars after they have been shipped from the factory. The strike of railroad shopmen and mechanics has retarded the movement of this precious freight, and dealers report their shipments are being tied up at junction points.

A result of this has been to revive the driveaways from the factories. One of the big driveaways is now on its way from Pontiac, Mich. Fifteen Oakland cars are being driven from the factory by a party headed by H. G. Sperreng, president of the Sperreng-Oakland Co., Oakland retailer here. Even his daughter, Miss Irene Sperreng, will drive a car. The shortage of railroad cars because of the requirements for moving the grain crop is another reason why dealers are finding the driveaways desirable.

The use of safety devices is given as one of two causes by the police for a decrease of 45 per cent in motor car thefts for the first seven months of 1919, as compared with the same period last year. Up to Aug. 1, 835 motor cars were stolen. In the same period last year 2241 cars were stolen, of which 1373 were recovered. The other reason for the decrease is the activity of the police.

The new city ordinance limiting the parking of motor cars in the downtown congested district to one hour became effective to-day, but its enforcement will not begin until Monday. Two hours was the former limit. Fifty patrolmen will be used to enforce the law.

The Nash St. Louis Co. will be incorporated to handle the retail sales of Nash cars in St. Louis, succeeding the Nash Kommers Motor Co. E. W. Arbogast will leave the Dorris Motor Car Co. on September 1 to be a director and general manager of the new company.

The H. & H. Machine Co., which specializes in regrinding motor cylinders, has leased the building at 4274-4276 Easton Avenue.

Bids for the first issue of bonds for the improvement of the roads of St. Louis county, which adjoins St. Louis, will be opened Aug. 19. The first issue will be \$520,000, the total amount voted being \$3,000,000. The bonds were voted for several years ago, but the work was held up by action of one taxpayer in the courts.

The request of the Tate-Gillham Motor Car Co., Dodge distributer, to erect a \$250,000 building for sales purposes at the northeast corner of Sarah Street and Lindell Boulevard was denied by the City Plan Commission because the proposed site is in the second class residence district under the zoning law, and commercial structures are not permitted there. At Laclede and Sarah Streets, two blocks away, where the Dorris Motor Car Co. has a plant, is a commercial district, and Tate-Gillham sought to have that district extended.

Rudolph Gerdelmann, a returned foreign service man, is now in charge of the automotive equipment department of the main store of Geller-Ward & Hasner Hardware Co.

Oscar Norris has joined the sales force of the Mississippi Valley Motor Co., Oakland distributer, and will be connected with the Memphis branch, when it is opened in September. He has recently returned from service with the Y. M. C. A. in France.

C. I. Albach, who has been connected with the motor truck and tire business of St. Louis for ten years, has been made manager of the service and truck department of the Bilgere-Wheeler Auto Co., Ford dealer.

GREENSBORO

Will Organize Dealers

GREENSBORO, N. C., Aug. 16.-With a view to forming an association, the automobile dealers of Raleigh met recently and elected a committee to complete the organization. M. A. Rushion is chairman. Other members are L. A. Goodwin, B. S. Shepherd, W. S. Murchison, Fox Marshall and B. M. Beaman. The automobile dealers will meet Friday in the Chamber of Commerce rooms, when the organization will be perfected.

The 11/2-story building on the Gilmer property, corner of Church and Elm Streets, to be used by Penny & Long, state distributers for the American Six automobile and Haynes tires, is now ready for occupancy. The structure will be used solely as a sales and show room. It is 60 by 100 ft., of pressed brick and stucco. The offices will be immediately above the showrooms. American Six distribution has been moved here from Winston-Salem. H. W. Dixon will be associated with the new firm. The Sutton Auto Co. will handle the company's service business.

Blackwell-Whisthunt Motor Co. has leased the new garage being built near the Southern Railway crossing on Summit Avenue. M. O. Blackwell and W. M. Atkinson, of Atlanta, are members of the new firm. It will handle the Saxon Six and the Hanson Six.

Thomas C. Hunt, Inc., has been appointed distributer for Packard cars and

Mr. Hunt, with whom is associated C. Harold Andrews, has established tem-

porary headquarters at the O. Henry Hotel. Mr. Hunt is president of the corporation and Mr. Andrews secretary and treasurer. The latter will be in charge of the selling end. The territory consigned includes all of central Carolina. A special Packard service man will reach Greensboro soon.

LOS ANGELES

Devoid of Cars

LOS ANGELES, Aug. 14.—There are a dozen or more showrooms here absolutely devoid of motor cars. Distributers who have been visiting the motor car factories report they do not expect any material increase in shipments before October.

With four airplane passenger services operating here successfully, there now is a movement on foot to have the city set aside a plot of land of sufficient size and establish it as a general landing field.

After being with Chanslor & Lyon for twelve years, a large part of the time in the capacity of general manager, Harry Mason has resigned and become identified with the Electric Equipment

Chevrolet Motor Co. will inaugurate the zone system, similar to that of the Ford company. J. A. Griffin and W. Johnson have been named as two of the managers. The same company is planning to erect a four-story building at Twelfth and Hope Streets to house the factory branch.

Selling passenger cars at this time consists largely of order taking The demand for motor trucks has been the heaviest in history.

Charles P. Cabrera has been named general manager for Earl V. Armstrong, Inc., succeeding Don P. Smith, who will be associated with W. P. Herbert in the distribution of the Cleveland. Cabrera has been with the Armstrong organization as secretary and treasurer for five years.

Although the Goodyear Tire & Rubber Co. now owns the site of Ascot speedway the track will not be disturbed for several months and announcement has been made there will be the annual Thanksgiving race meet again this year.

E. B. Wilson, manager of the Willys-Overland branch here, who was summoned to a conference of branch managers at Toledo, began his eastern trip by airplane. He missed the California limited by a few minutes but hurried to a flying field, engaged an airplane and pilot and traveled by air to San Bernardino, a distance of 65 miles, where he overtook the train.

The Samson Tire & Rubber Co., Compton, Cal., has opened a factory branch at 300 West Pico Street. The Leach Biltwell Co. has been named distributer for the Columbia Six. The Vim Motor Truck Co. has established a factory branch here.

PHILADELPHIA

Weighs Trucks for Roads

PHILADELPHIA, Aug. 14.-The Highway Department of Pennsylvania is going to try out a machine to weigh motor trucks and their loads, with a view of seeing that the new State law limiting weights is kept.

Wherever possible, every principal State highway, known as an arterial road, is being constructed of reinforced concrete. To prevent heavy trucks from injuring these roads by causing a certain amount of vibration in the body of the cement, tending to disintegrate it. the new motor car law fixes the maximum weight of trucks, as already announced. If intended for use on State highways, the maximum weight for a truck is 26,000 lb. With machines of the proposed type there will be no guessing as to weight.

If the machine test proves satisfactory. no less than forty of the weighing mechines will be manufactured and distributed at various points in the State. They will be portable and easy of operation, but the department will give out no more information until after the

The campaign to check reckless driving in Pennsylvania has begun in earnes: and the first automobile speeder has lost already his license in this State.

E. J. Barlet, president of the Stability Motor Co., has suggested to the Philadelphia Automobile Trade Association that a closed car show be held in this city next fall. Louis C. Block is president of the association. The matter will be brought to the attention of the board of directors at its next meeting.

Licenses for pneumatic-tired vehicles numbering 402,797 had been issued up to Aug. 1. But since then the number has increased to a total in excess of 412,000.

Buyers and dealers are slowly adjusting themselves to the requirements of the new automobile code. Only 156 dealers in second-hand cars have registered since the bill was signed by the Governor. It is estimated that there are 2000 dealers in Pennsylvania, although these figures are not authentic. Up to the present, affidavits have been filed by 1523 persons, according to law, relative to the purchase and sale of second-hand

According to statistics compiled by a rubber company, approximately one hundred Philadelphia firms and individdals are engaged in motor truck transportation service, with routes covering a radius of 125 miles.

The Hudson Motor Specialties Co recently secured an injunction against the Butts & Ordway Co. of Boston. Mass., restraining that company from selling any other crankcase repair arm than that manufactured by the Hudson specialties company as that of the Hudson company.

PORTLAND

Unable to Fill Demand

PORTLAND, ORE., Aug. 16—F. W. A. Vesper, of St. Louis, president of the National Automobile Dealers' Association, was warmly welcomed here last week by Portland motor car dealers on the occasion of his first visit to the newly organized Oregon branch of the association. This branch was formed two months ago through the efforts of Robert E. Magner, of Seattle, Northwest organizer for the association.

Mr. Vesper was taken in hand when he reached Portland by a special committee from the Dealers' Motor Car Association of Oregon, composed of A. B. Manley of the Manley Auto Co., chairman; J. W. McCallom of the Northwest Auto Co.; W. C. Garbe of the Oregon Motor Car Co., and M. O. Wilkins, secretary of the Dealers' Motor Car Association.

The main event of his visit was a trip on the Columbia River Highway in the afternoon as far as Multnomah Falls, where an informal smoker was held. On the return, the party stopped at Chanticleer tavern for a dinner in Mr. Vesper's honor, at which about 60 Portland and Oregon dealers, and a good representation from the southwestern Washington territory tributary to Portland, were present.

Mr. Vesper, in his address explaining the purposes of the National Association and the benefits of co-operation among motor car dealers, emphasized particularly the need of getting together. "Get acquainted with your competitor," he urged. "You may like him."

After Mr. Vesper, the principal speaker was R. W. Schmeer, vice-president of the United States National Bank of Portland, who discussed Automobile Financing from the Banker's Viewpoint. A. B. Manley was toastmaster. Harry Austin, of Seattle, vice-president of the National Association, also was a speaker.

With every Oregon town reporting the same condition of unprecedented building and business activity, the demand for cars in this territory is enormous. Virtually every dealer is behind in orders from 60 days to three months.

Merely as an illustration of the shortage, the Northwest Auto Co. last week not only did not have a single new car on hand, but only one old used model. Even the personal cars of F. W. Vogler, president, and J. W. McCallom, manager, were sold.

It has become not a question of catching up, but of getting enough used cars to fill the demand. Dealers here feel handicapped so far from the manufacturing centers, and many of them are going to the manufacturers in the hope of some small degree of relief.

This general oversold condition has resulted in a great influx of cars of makes not previously represented in the territory, which are sold as fast as they arrive.

Among the cars not previously represented here for which agencies have been taken recently is the Dixie Flyer, handled by the C. H. S. Garage; the Stephens Salient Six, handled by a newly formed company composed of C. H. Hamilton. formerly United States tire retailer, and John A. Leatherman, who has resigned as branch manager of the Goodyear Tire & Rubber Co. to enter the Hamilton-Leatherman Motor Car Co.; the Sayers Six, handled by a new company, of which H. W. Denis is manager; the Templar, handled by the Wray Motor Car Co.; the King Eight, handled by the Rubin Motor Car Co.; the Singer, handled by the Moltzner-Westcott Motors.

Car registrations with the Secretary of State are now 75,000, which can be considered extremely healthy for a state claiming only 800,000 population.

Truck dealers are sharing in the prosperity. The good roads program, now in full swing, has opened a large market for trucks of 31/2-ton rated capacity with dump bodies. Oregon this year and the next two, including Federal assistance and sums to be spent by counties, will expend the greater part of \$30,000,000 on building good roads. At present the whole Pacific highway, which extends 360 miles through the state from the California to the Oregon line, is in process of being rebuilt and paved, the work to be completed next year. The state now has in process of building or rebuilding, or under contract, a total of 800 miles

Up to Dec. 1, 1918, there were only 2300 trucks in Oregon, and this included Fords. Already this year nearly double that number has been sold. Truck dealers are finding themselves in the same position as the passenger car dealers, facing a demand they are unable to fill.

NEW YORK

Has New Mirror Law

NEW YORK, Aug. 18—Dealers here are preparing to take care of owners on their clients' list and to equip vehicles in stock in compliance with the new state law, effective Sept. 1, under which trucks, buses and all commercial vehicles of one ton or greater capacity must carry mirrors. The Automobile Dealers' Association has sent out a memorandum on the subject to members.

The dealers have selected Sept. 17 as the date of the annual outing, to be held at the farm of Fred Wagner, a member, at Smithtown, on Long Island. An attendance of 200 is expected.

A large part of the space for the International Farm Tractor & Implement Exchange, to open Oct. 15 at the Grand Central Palace, has been contracted for, It will be one of the permanent exhibits of the Merchants' and Manufacturers' Exchange, owned and controlled by the Nemours Trading Corp.

MILWAUKEE

Has 50-50 Year

MILWAUKEE, WIS., Aug. 18-One of the largest local dealers described the passenger car situation in a more or less humorous way by saying, "This is a 50-50 year; the year was half gone before we got half of the cars we needed; now the summer is half gone and we haven't been able to get more than half of the cars for which we have orders booked or in immediate prospects." That is the situation of about 80 per cent of the dealers. At a time when recordbreaking business could be done if the supply were adequate, business actually is sadly restricted because orders cannot be filled.

The revival of the Elgin road racing classic on Saturday, Aug. 23, will bring out the largest delegation that has ever been sent by Milwaukee. The Milwaukee Automobile Dealers, Inc., are making up a large motoring party, which intends to go to Lake Geneva, Wis., on Friday evening, and leave that point early Saturday morning to go to Elgin.

The Chevrolet Motor Co., Flint, Mich., will start work within a short time on the erection of a large branch house in Milwaukee, at Grand Avenue and Twelfth



Traffic regulations rule the road everywhere. The picture above is that of a private road at Shillong, Assam, India, and its erection shows the number of cars that must be in operation in that country. But, as everywhere else, some drivers must be warned. The sign might well be copied in America.



Street, to serve the Wisconsin and Upper Michigan territory.

The Diamond Tire & Supply Co., Milwaukee, established May 15 at 130 Oneida street to distribute Diamond tires, mechanical rubber goods, etc., in Wisconsin and Upper Michigan, has incorporated its business with a capital stock of \$15,000. The principal owners are W. H. Mason, formerly manager of the Milwaukee branch of the B. F. Goodrich Co., and James R. Petley, an old Diamond man in this territory.

Tractor business, as reported by dealers in Wisconsin, is making good progress. From Shawano, in extreme northeastern Wisconsin, comes the report that one dealer sold ten tractors in seven days.

The Badger State Sales Co., Milwaukee, has been appointed dealer in the International truck for Southern Wisconsin.

W. H. Collins, Fond du Lac, Wis., for several years an exclusive tire dealer and repair man, has added a full line of automotive equipment. He will also act in the capacity of jobber for several lines.

Articles of incorporation have been filed in behalf of the Consumers Auto Accessories Protective Association, with head-quarters at Waukesha, Wis., to deal in automotive equipment, principally by selling certificates or credit memoranda entitling purchasers to buy merchandise at reduced prices. A new feature is being introduced in offering purchasers legal consultation at reduced rates. The officers of the company are: President, T. W. Bradburn; vice-president, R. G. Cramer; secretary and treasurer, I. J. Ludwig.

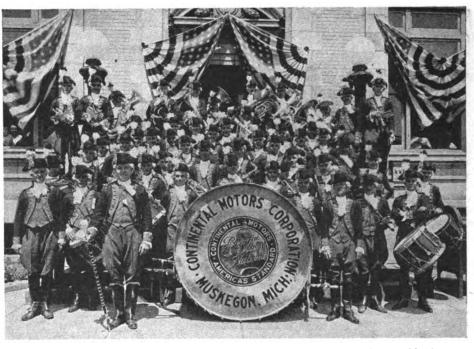
The Motor Truck Service Co., 2444 Lisbon Avenue, Milwaukee, has been appointed state distributer of the Master truck. John G. Burnham is president and W. H. Weber, secretary and treasurer.

The E. M. Sullivan Motor Co., Milwaukee, has been organized by Dr. E. M. Sullivan, Matt Carpenter and John H. Ryan to act as local distributer of the Diamond T truck. Headquarters are at 489 Broadway. Mr. Ryan is state distributer of the line.

The Park Motor Co., Sheboygan, Wis., recently formed by Arthur F. Raab to act as Buick dealer, has purchased the entire interests of the E. & H. Motor Co., Sheboygan, Mitchell and Reo dealer. The E. & H. company will be continued as a separate firm without change of location. The Park company has opened its new Buick garage on North Eighth

The Milwaukee branch of the Goodyear Tire & Rubber Co. entertained seventy-five motor truck and solid tire dealers in the Wisconsin and Upper Michigan territory at a sales conference, followed by a banquet at the Milwaukee Athletic Club, on Aug. 7. The event was arranged by A. J. Sears, manager of the branch.

Platzer Bros., 165 Eleventh Street, Milwaukee, tires and repairs, have moved their shop and office to 465 Jefferson



These lusty musicians, photographed at a recent demonstration at Muskegon, Mich., comprise the Continental Regulars, a band made up exclusively of workers in the factories of the Continental Motors Corp. The bandmen revived in their costumes the spirit of '76, and their appearance July 4 will be an annual event hereafter

Street, increasing the capacity 150 per cent.

The Storage Battery Service Co., Milwaukee, is now in its new quarters at 598 Jefferson Street.

The Appleton Overland Co., Appleton, Wis., is now owned and managed by Louis and Leonard Wolf, who purchased the interest of the third partner, E. A. Kubitz

Karl S. Sharp, Mauston, Wis, who has represented the Ford continuously for fifteen years, has sold his interest in the Sharp & Eakins Co. of Mauston to his partner, Irwin T. Eakins, who will continue the business.

Schlenter Bros., Cascade, Sheboygan county, Wis., have dissolved partnership. Otto Schlenter takes over the garage and repairshop and dealership, and will build a new garage.

The Brill-Storm Co., Appleton, Wis., has been formed by Edward Brill and William Storm to do a general automotive repair business.

H. M. Taylor of Waupaca, Wis., is establishing a new tire store and vulcanizing plant at 110 West Fulton Street.

Edward Patt & Gustave Stasewitch, Sheboygan, Wis., who established a repairshop, specializing in welding and cutting, at 816 Erie Avenue, in April, have enlarged the business, which now is known as the Sheboygan Welding & Cutting Co.

Bert E. Dunn, Racine, Wis., who has been engaged in the moter livery business since May, is planning to build a new garage and will represent several lines as well as conduct a repairshop.

L. E. Cookson, 428 Twelfth Street, Milwaukee, who has conducted a repairshop for a year or more, has branched out as a tire dealer and repairman, and the business will be known as the Cookson Tire & Supply Co. It will feature the Kelly-Springfield and Ajax lines.

The Federal Tire & Supply Co., 345-347 Eleventh Avenue, has added a battery sales and service department and will act as Wisconsin distributer for Prest-O-Lite. The former branch store of the Federal Rubber Co. at 509 Broadway has been taken over, together with an adjoining building, to handle tire and battery sales and service in the downtown district. The South Side plant and store will be continued.

Wants to Stop Sale of Old Junk Tires

Members of the California Automobile Trade Association are being advised by the association that they should junk old tires, so cutting them as to make them unfit for retreading and sale to the public as worthy goods. This results from a resolution adopted at the last meeting of the association at San Diego and proposed by A. V. Storer, secretary of the Citrus Belt Auto Trades Association. Storer's resolution sets forth that many times these junk tires are given a cheap retread, a good buffing and some camouflage and are then resold as good tires. The result becomes an unsatisfied customer with the entire trade given a black eve.

So the association recommends that whenever such old tires come into the shop the garageman should cut the tire completely in two, severing the bead, also making a cut twelve inches long through the fabric opposite where the tire is severed.

SAME WEEK FOR 1920 CAR AND TRUCK SHOWS

New York and Chicago Exhibitions Will Be Separated Only in Location

NEW YORK, Aug. 18—The 1920 passenger car and truck shows, held simultaneously but in widely separated buildings, will constitute the annual winter's exhibitions for both New York and Chicago. This radical departure from the plans of last year was announced to-day by officers of the National Automobile Chamber of Commerce, the organization that will supervise again the showings after a lapse of two years.

The exhibitions will be held under the

following schedules:

New York, Jan. 3 to 10. Passenger cars and accessories at the Grand Central Palace. Commercial cars and accessories at the Eighth Coast Artillery Armory.

Under National Body

Chicago, Jan. 24 to 31. Passenger cars and accessories at the Coliseum and First Regiment Armory. Commercial cars and accessories at the International Amphitheater.

These dates and places, as well as the plans for management of the show and for the showing itself, constitute a wide variation from those of last year. Then, both shows were held under the direction of the dealers' associations of the two cities and the exhibition of commercial cars came the week after that of the passenger cars, although in the same buildings. This winter, the two shows will be under the management of the national association and the passenger car and truck divisions will be separated only as regards place and not time.

This was decided upon so that visiting dealers might kill two birds with one stone, not causing them to remain in the city from one week to another to view both showings. As many did not stay over the week-end last year, thus missing the truck showing, it was thought this plan would make the showing more national in scope, with a much increased dealer attendance for both divisions.

Trucks Far Uptown

The New York show last year was held at Madison Square Garden and in the Sixty-ninth Regiment Armory. This winter it will return to the Grand Central Palace, for the passenger car division, the same as two years ago. Four floors will be taken.

The truck division will exhibit itself, at the same time, in the Eighth Coast Artillery Regiment Armory, a large and well arranged building at 193d Street and Jerome Avenue, far uptown. This, however, was not considered an undesirable location by the show officials as it is only about thirty minutes by subway from the Grand Central station, and was, indeed, almost the only place avail-

able for those dates. The building was declared by officials to be the largest of its kind in the world without interior posts. The main hall is 300 x 600 ft., with a lower room nearly half as large, in addition to large company rooms, a gymnasium and spacious mess hall that, by the way, probably will be used as a restaurant.

The passenger car show at Chicago will not change in location from that of last year, it also having been held at the Coliseun.

The truck division will go to the stockyards district and take over the building, consisting of an arena and two wings, used for the annual stock and horse shows and similar events. Plans call for the utilization of about 120,000 sq. ft. of space. It may be reached by elevated, being, probably, twenty to twenty-five minutes from the center of the city.

Diagrams and application blanks are in course of praparation by the Champer of Commerce and will be ready for mailing on Sept. 8. The first allotment of space will be made on Oct. 2. As in former years when the association directed the shows, S. A. Miles will act as manager.

NEW STOUGHTON TRUCK WILL MAKE APPEARANCE

STOUGHTON, WIS., Aug. 18—The Stoughton Wagon Co., one of the oldest heavy duty and farm wagon manufacturing concerns in the United States, is engaging in the production of motor trucks, to be marketed under the trade name of Stoughton, in 1½, 2 and 2½-ton capacities.

The first model, a 1½-ton job, was completed during the week and is being tested. The present plant is being enlarged by several additions to provide new facilities for motor truck assembling and machine work and it is intended that eventually the farm wagon department will take up only a small part of the factory.

Eau Claire Aero Corp. Formed

EAU CLAIRE, WIS., Aug. 15—The Eau Claire Aero Corp. has been incorporated with a capital stock of \$25,000 by local business men. A hangar is being constructed on a new flying field established at the old fair grounds south of the city. Ensign Virgil R. Grace, late of the U. S. Navy, is vice-president and general manager; Guy R. Wood is president and A. J. Walsh, secretary-treasurer.

Municipal Vehicles to Pay Regular Tax

MILWAUKEE, WIS., Aug. 14—Municipally owned motor vehicles, including fire and police cars and trucks of all kinds, must be registered in Wisconsin the same as privately owned cars and at the same rate of fee, according to a new law enacted by the Wisconsin legislature of 1919.

COMPLETE PLANS FOR MAXWELL-CHALMERS

Provision Made for Exchanging Old Stock for New — Increased Production Plans

DETROIT, Aug. 15—Plans for the merger of the Maxwell-Chalmers interests have been practically completed, there remaining but a few minor details to be adjusted before the plan is placed before the stockholders of both companies for their approval. The plan contemplates an exchange of securities of the two companies for no par value stock in a new company which will be known as the Maxwell-Chalmers Motor Corp. The exchange will be made in the following proportions:

Maxwell, first preferred 120 per cent; Maxwell, second preferred 66½ per cent; Maxwell, common 70 per cent; Chalmers, preferred 95 per cent and Chalmers, common 15 per cent. It also includes an issue of \$10,000,000 notes which are to be convertible into new stock. The conversion price will be between 70 and 75. The \$10,000,000 notes will be sold to pro-

vide working capital.

Manufacturing plans call for a huge production increase of both Maxwell and Chalmers cars. The Maxwell company is at present running 200 cars daily, while Chalmers' daily production is averaging 70 cars. The Maxwell company is 35,000 cars behind orders and Chalmers has 7000 orders ahead. Maxwell hopes to manufacture 100,000 machines in 1920, and Chalmers' production will be boosted to 40,000.

Work on the new Maxwell plant is progressing rapidly. As rapidly as possible Maxwell's production will be moved from the present Chalmers Motor Car Co. plant, where both cars are now being made. The new Maxwell manufacturing division to be in Highland Park will cover 75 acres and cost \$12,000,000. It will employ 15,000 men. The plant will be made as near self-containing as possible.

The new factory here will take two years to complete. The completed plant will have 13 units and an 800 ft. loading dock. It will have a daily ca-

pacity of 500 cars.

The factory will include administration building, laboratory, machine shop, power house, assembly building, two storage buildings, axle and body plants, heat treat, motor assembly and pressed steel plants. The majority of the buildings will be one story of concrete, brick and steel construction.

Bethlehem Merger Completed

ALLENTOWN, PA, Aug. 16.—A new corporation has been formed in Delaware to take over the Bethlehem Motor Corp. of this city and the North American Motor Co., Pottstown, Pa. The plan provides for the raising of about \$100,000 in cash.



LOS ANGELES SPEEDWAY MAY OPEN FEBRUARY 22

Promoters Ask A. A. A. Permission for Opening Race— New Track 1¼ Miles

NEW YORK, Aug. 15—The date of Feb. 22, Washington's Birthday, has been asked for by the promoters of the new Los Angeles speedway for its opening event. Contest officers of the American Automobile Association here, to whom the request was made, look with favor upon granting the date, but no official action can be taken until the fall meeting of the contest board, set tentatively for the month of November.

Details of the project available here indicate that the promoters, headed by J. M. Danziger, have obtained a tract of land between the Wiltshire and Pico Boulevards, almost midway between Los Angeles and Venice. A boarded speedway of 1½ miles will be erected with stands one-fourth of a mile in length, twenty rows deep and seating about 40,000 persons. It is understood that a total of \$400,000 is available for the project and that construction will start at once. The center of the track enclosure, according to letters from Danziger, will be converted into an aviation and polo field.

Danziger, the president, is also president of the Mexican Petroleum Oil Co. and lives at Los Angeles. Associated with him are several motor and motion picture men of that city.

No information has been received concerning the race or races projected for Washington's birthday, but it was stated that the promoters hoped to hold big meets yearly on that date and Thanksgiving. Official reports concerning it are expected shortly from P. J. Walker, California director of the A. A. A., and J. B. Smith, contest representative at Los Angeles.

Klaxon Secretary Marries

SAN FRANCISCO, Aug. 16.—Walter Pierson Coghlan, secretary of the Klaxon Co., Newark, N. J., was married here to Mrs. William Fitzhugh Lee Simpson, daughter of Mrs. John Aitken, Roseville Avenue, Newark, N. J.

FOREIGN MAKERS LISTED FOR AUTOMOBILE SALON

NEW YORK, Aug. 16—Seven foreign makes of cars, as well as American models and accessories, are named in a list of exhibitors just made public for the Annual Automobile Salon to be held here at the Hotel Commodore the week of Nov. 16-23. The entire second floor of the hotel will be utilized.

The European lines to be shown are announced as the De Dion Bouton, the Peugeot and the Renault, by French makers; the Rolls-Royce, the Sideley-

Armstrong and the Sunbeam, by English factories, and the Lancia, and possibly the Fiat, by Italian makers.

American exhibitors, so far announced, are the Brewster, Cunningham, Daniels, Locomobile, Meteor, Phianna and Porter lines. Body builders to exhibit are the Ostruk, Fleetwood, Holbrook and Rubay companies. Several accessory makers also will show.

The officers of the show are E. Lascaris, De Dion Bouton representative here, president; T. E. Adams, Lancia representative, vice-president; Leon Rubay, of the Rubay Co., Cleveland, vice-president, and R. W. Schuette, Rolls-Royce representative, secretary and treasurer.

MONTANA FAIR WILL STAGE CAR AND TRUCK EXHIBITS

GREAT FALLS, MONT., Aug. 15—Distributers and dealers in automobiles and accessories will take part in the Montana State Fair Automobile Show to be held at Helena, Sept. 8-13.

The former machinery building has been transformed into the automobile show hall, covering a floor space of 10,725 sq. ft. It has been divided to contain 32 motor cars and 20 accessory displays. Trucks and tractors will be shown in the machinery division.

An automotive parade will be conducted about the grounds and before the grandstand enclosure for three afternoons of the week. All makes of motor cars, trucks and tractors represented in the various displays will be permitted to join the procession.

WANTS FEDERAL LAW TO CURB CAR THEFT

WASHINGTON, Aug. 14—Legislation from Congress to make interstate business in stolen cars a federal offense has been requested by the National Automobile Dealers' Association. One bill already introduced to meet this demand comes from Congressman Dyer of Missouri. Another will be introduced by Congressman Newton of the same state.

Insurance companies are raising rates considerably because of many recent thefts and this, states Manager Harry G. Moock of the N. A. D. A., is causing a decrease of automobile sales. At the same time, the action of thieves in removing cars from one state to another for resale is hurting the car market. It is hoped that some sort of legislation can be passed making the offense sufficiently serious to deter the thieves and reduce the number of cars stolen.

F. W. A. Vesper Not in New Company

KANSAS CITY, Aug. 16—The name of F. W. A. Vesper was erroneously mentioned in these columns July 30 in connection with the organization of the Vesper Motors Co., Reo distributer. W. H. Vesper, Oklahoma City, is president of the concern; W. S. Roberts, formerly in the tractor field, is vice-president and general manager, and D. E. Castles, secretary and treasurer.

TRUCKS SHOW WORTH IN WESTERN MUD

Transcontinental Train Has Little Mechanical Trouble Despite Obstacles

NEW YORK, Aug. 14—Road conditions and operations obstacles, seemingly almost impassable, that have been met by the transcontinental train of the Motor Transport Corps were described in dispatches received here concerning the progress of the convoy, now making its way through Wyoming after having successfully crossed Nebraska. Although two days behind schedule, due to the unexpected mud, the train has suffered little mechanical trouble and is continuing without interruption its onward course.

The roads of western Nebraska tried the train in the severest manner. Often the big trucks were buried almost hub deep in the mud or quicksand so that only the combined efforts of men and tractors were able to pull them through. One day last week saw an advance of no more than twenty-five miles in nine hours and at another time only twenty-one miles were passed in six hours. Roads and bridges have had to be built and passageway literally cut through the mud and sand.

But the train has met the test in a manner worthy of laudation. One motorcycle had a broken front fork last week and one of the passenger cars developed carbureter trouble that necessitated changing. The most serious mechanical accident was the blowing out of an engine head gasket on one of the trucks. Otherwise, the train has come through the grind with only the slightest of trouble.

In addition to proving the worth of the equipment, the train also is proving the need of a real transcontinental highway. For military purposes, the difficulties found demonstrated the great need for an improved highway, as any operations over some of the stretches encountered would be practically impossible.

Studebaker Co-operative Plan Approved

SOUTH BEND, Aug. 14.—Directors of the Studebaker Corp. have approved the co-operative plans previously announced, which include an anniversary check plan applying to all employees; permission for employees to purchase either preferred or common stock of the company; annual vacation of one week with pay for all employees of two years' service; pension and co-operative insurance plans.

Rev. Dr. Charles A. Lippincott has been appointed manager of the Co-operative Department.

The company has issued a booklet on "Studebaker Co-operative Plans," explaining the scheme, and is distributing it to all employees.



MANY TRACTORS SOLD AT MISSOURI SHOW

Demonstration Proved Necessity for Real Tests—Suggest Longer Plowing

SEDALIA, MO., Aug. 15—(Special Telegram) Three thousand Missouri farmers watched thirty tractors plow Thursday morning for two hours, and 1000 watched the 90-minute demonstration Friday morning, in the fields half a mile from the grounds of the Missouri State Fair. An even larger number observed the tractors in display tents and watched them operating equipment by belt power and studied the new implements devised for tractor operation. The demonstration and display, with emphasis on the implement features of tractor exhibits, was a huge success and was so pronounced by the fair management, the State Department of Agriculture and by practically all the distributers and tractor dealers.

Distributers almost unanimously declared that the state fair demonstration was far and away more valuable, from the standpoint of public information and consumer interest, than the national demonstration because the state fair gave opportunity for actual work under conditions with which farmers are familiar and to farmers who will buy from the distributers and dealers represented.

The farmers are a lap ahead of the dealers, as was indicated in the sale of perhaps a hundred tractors during the state fair week. Only 15 per cent of the tractors shown were shipped back, the rest being delivered to purchasers.

The farmer did not pay much attention to the tractors themselves, either in display tents or on the field. He looked at the equipment and at the work being done by the belt and behind the tractors in the fields. The farmers criticized fast plowing and whether the plowing was well done or not. They criticized poor plowing and the tractor was queered in their minds if the furrows did not look good or the stubble was not all turned under. They seemed most exasperated with the tractor operators who made frequent stops, whatever the reason for the stop may have been.

Missouri farmers want to see tractors working steadily for several hours at a stretch. The refinements of testing, such as seem popular in the East, are not desired in the Middle West, yet there is no demand from farmers for tests or records from the agricultural colleges. The farmers want to see the tractors performing substantial work.

Several distributers agree with the farmers that the Missouri state fair method of demonstration is not satisfactory. O'Maley, of the Fordson, suggests two days continuous plowing or all day plowing for two days and is understood to be favorable to all day plowing every day of the fair so that 15,000 instead

of 4500 different farmers may watch the work and have time to watch more of the tractors. Wilsey, of the Wallis Cub, suggests 50-hour non-stop plowing.

This demonstration was arranged and splendidly advertised and managed by the Kansas City Tractor Club under national rules, Guy F. Hall, secretary of the club, being personally in charge. The attraction of the tractor demonstrations is credited with having made this Missouri's most largely attended state fair. Twenty loaded trucks from Kansas City and twenty-five, mostly loaded, from St. Louis, reached Sedalia Thursday night in the ship-by-truck demonstration arranged by the motor truck divisions of the dealers' associations of the two cities, cooperated with by the Chambers of Commerce.

APPROVE MANUFACTURE OF NEW OVERLAND SIX

TOLEDO, OHIO, Aug. 15—Stockholders of the Willys-Overland Co., meeting kere, have ratified the proposed new contract with the Willys Corp., the company just organized to include all the holdings of John N. Willys. Ratification of the contract assures production of the proposed six-cylinder car in factories outside of that here. Announcement concerning the place of manufacture has not been made.

Cadillac Prices Advance

DETROIT, Aug. 18—Effective at once are the changes in price announced by the Cadillac Motor Car Co., which increase the price of all open models \$270, and provide for an advance of \$235 on the sedan, \$350 on the victoria, and \$220 on the limousine, making new prices compare with old as follows:

New price	Old price
\$3,400	\$3,220
3,490	3,220
3,490	3.220
4.450	4.215
4,140	3 790
4,740	4.520
	3,400 3,490 3,490 4,450 4,140

Cole Advances Open Cars Only

INDIANAPOLIS, IND.. Aug. 18—Open models of the Cole Motor Car Co. have been advanced \$155. Closed bodies were erroneously reported to have advanced \$200. They remain the same in price, as follows:

		New Price	Old Price
4-passenger	Touring	\$2,750	\$2,595
7-passenger	Touring	2,750	2,595
Roadster		2,750	2,595
Sportster		2,750	2,595
Sportsedan		3,895	3,895
Sportosine		3,995	3,995
Sportcoupe		3,795	3,795
Tourosine		3,995	3,995
Toursedan		3,995	3,995
Towncar		3,895	3,895

Advance Allen Prices

COLUMBUS, O., Aug. 15—An increase of \$100, to \$1,395, was announced here to-day for the new Allen Model 43, by the Allen Motor Co., makers of the line.

NAME JOINT BODY TO STUDY GAS PROBLEM

Motor and Producer Associations Merged in New Committee

NEW YORK, Aug. 18—An attempt to foster closer relations between the producers of oil and gas and the automobile industry will be made through committees representing the two interests, the appointments of which were announced here today. They will represent the American Petroleum Institute, on the one hand, and the National Automobile Chamber of Commerce, the Society of Automotive Engineers and the Motor and Accessory Manufacturers' Association, for the automobile interests.

The first meeting of the combined committee will be held here on Aug. 21, when a specific program of work and efforts will be arranged. In general, however, the members will endeavor to coordinate the two industries, seeking the solution of various problems affecting the two industries and endeavoring to secure a dependable supply of gasolene to meet the growing demands of the motor car.

The automobile interests will be represented by John N. Willys, of the Willys Overland Co.; Alvin D. McGauley, of the Packard Motor Car Co., Detroit, and Charles W. Nash, of the Nash Motors Co., Kenosha, Wis., for the National Automobile Chamber of Commerce; H. L. Horning, of the Waukesha Motor Co., Waukesha, Wis., for the Motor and Accessory Manufacturers' Association, and Charles F. Kettering, of the Dayton Engineering Laboratories Co., of Dayton, for the Society of Automotive Engineers.

The petroleum institute has named Henry L. Doherty, of Henry L. Doherty & Co., New York; Samuel Messer, of the James B. Berry's Sons Co., Oil City, Pa.; Dr. William M. Burton, Standard Oil Co., of Indiana, Chicago; W. H. Isom, Sinclair Oil and Refining Co., and R. D. Leonard, Atlantic Refining Co., Philadelphia.

Acason 11/2-Ton Model in Production

DETROIT, Aug. 15—The Acason Motor Truck Co. is now in fair production on its new 1½-ton chassis. A feature of this truck is that it is equipped with pneumatic cord tires as part of its standard equipment. The chassis has a Waukesha engine, Timken worm-drive axle, Blood Bros. universal joints, and Detroit Steel Products springs.

Alley and Milton Enter Elgin

CHICAGO, Aug. 14—Tom Alley and Tommy Milton have signed up for the Elgin classic, Aug. 23. Alley will drive a Bender special and Milton a Roamer, being teamed with Ralph Mulford.



NORTHWEST PROMISES MUCH FOR TRACTORS

Showing at Aberdeen, S. D., Well Arranged—Revert to Old Payment Terms

ABERDEEN, S. D., Aug. 18—(Special Telegram)—Crippled railroad transportation has seriously delayed the northwest tractor demonstration here. Exhibits shipped weeks ago have not as yet been received and some of the companies probably will be disappointed. However, there is a very creditable showing of the leading tractor and equipment lines and the demonstration promises to be successful from a viewpoint of being representative of the tractor and power farm equipment business.

The demonstration grounds are located conveniently to the city, being only about two miles out with street car transportation. The demonstration fields present a variable aspect. With soil conditions essentially the same, some of the tractors will be compelled to operate on ground that is far from level. The stubble is short and there is no trash, so that plow operation will be comparatively featureless. Outside of plowing and fitting, no preparations are being made to demonstrate tractor utility.

A commendable departure is in the arrangement of the exhibit tents. These occupy the three sides of a triangle, with the accessories' tent forming another and smaller triangle at the apex.

A number of the tractor concerns are showing their complete lines. The result of this is that there is a larger proportion of very large capacity machines shown here than was the case at Wichita or has been the case at any of the smaller demonstrations this year. Tractors pulling six, eight and ten plows will be no novelty when the plowing begins to-morrow. The equipment show is quite as comprehensive as any that has been seen this year and includes somes features that are peculiar to this section of the country. A few tillage tools used only in the northwest will be shown with other lines.

The local Commercial Club estimates an average attendance of about 10,000. a day. Hotels are expecting a crowd of about 25,000. The probabilities are that, if the weather continues favorable, a good attendance will be assured The facilities at Aberdeen afforded for taking care of a crowd would be swamped if more than the estimated number come.

It must be said, however, that, so far, the arrangements have been satisfactory and everything has worked smoothly. The community has entered into the spirit of making this a worthwhile event and, if anyone suffers discomfort this week, it will not be the fault of these managing the demonstration. Elaborate preparations have been made for entertaining the crowds during the evenings by parades, street carnivals and baseball games.

The only sensational feature so far has been the official announcement that hereafter power tillage implements would be sold to the dealer on the regular terms applying to horse-drawn implements. This will cover engine, plows, disk harrow and the like.

By many, this is regarded as a backward step and the policy was strenuously opposed by some of the concerns in the business but pressure from the old line implement houses was so strong that the independents finally gave in. The arrangement, however, will not affect the terms in vogue in distinctive lines built to use with the Fordson but will apply on the general lines sold with most other tractors in the list. The zone system of terms adopted by the National Implement and Vehicle Association two or three years ago governing terms on horse-drawn equipment will be applied to power equipments.

Should the Show Dates Be Changed?

Motor World, next week, will publish an interesting discussion of automobile show dates, by men who represent large territories in the distribution of motor cars. Participants in the discussion generally agree that there is something wrong with the present arrangement of dates for shows and new models. Suggestions for improvements are numerous, covering many phases of the field of sales promotion.

You will want to read this article. Watch for it in Motor World of Aug. 27.

NEW PLANTS AND NEW INDUSTRIES IN TOLEDO

TOLEDO, Aug. 15—Thirty-five new industries have been added to the industrial life of Toledo, and thirty-three of the older plants have built extensions or purchased additional units since Jan. 1. The new industries are spending millions in erecting new plants and will require thousands of employees.

Among the largest new factories completed or upon which work has been started are the Standard Oil Co., Ironville, which is to spend \$5,000,000 at once, and probably \$25,000,000 within a few years; the Mountain Varnish & Color Works, West Toledo, \$1,500,000 factory; the Marlean-Bucklen-Schoen Co., \$500,000 factory; the Toledo Standard Commutator Co., \$450,000 factory; the Toward Textile Mills Corp., \$400,000 factory, and the Empire-Ohio Chemical Co., \$500,000 plant.

Among the largest plants to expand, or which have announced plans for immediate expansions are the Maumee Malleable Castings Co., Toledo-Chevrolet Co., Willys-Overland Co., Electric Auto-Lite Co., Toledo Screw Products, Toledo Shipbuilding Co., Toledo Bridge & Crane Co., and Doehler Die Castings Co.

FARMER CROWDS SEE AKRON TRACTOR TESTS

Hard Soil and Steep Grades Faced by Machines End Show

AKRON, OHIO, Aug. 12—The fourth and last of the series of tractor demonstrations under the direction of the Ohio State University began here to-day before the second largest crowd of the series. At Fostoria it was estimated that fully 10,000 farmers were present on each of the two days. The Akron crowd may be estimated as half of that.

The crowd stayed throughout the day and each tractor was watched, irrespective of the fact that the fields plowed were more than a half mile apart, necessitating considerable dusty walking.

Furthermore, a significant thing was the relatively greater interest manifested in the afternoon fitting demonstration compared with that displayed in the forenoon plowing. This is indicative of the fact that farmers are beginning to appreciate more fully the versatility of the tractor. They are seeing that it can be used for a variety of things in farm work that hitherto have not been given the attention they should have received.

While the soil conditions at Akron were favorable both for plowing and fitting, the land was hilly, and some of the tractors had rather steep gradients to climb. A few of them experienced a little difficulty in making an entirely satisfactory showing, but for the most part the wheels did not do an unusual amount of slipping.

Twenty-nine tractors participated, practically all being the same machines that had taken part in the foregoing demonstrations of the series.

Final tests, consisting principally of dynamometer tests of drawbar pull, were made at Akron, and the total results will be announced by the university within a few days.

Bacon Heads McGraw Sales

EAST PALESTINE, OHIO, Aug. 16— H. M. Bacon has been appointed general sales manager of the McGraw Tire & Rubber Co., with headquarters at the company's main office in Cleveland.

He comes from the Diamond Rubber Co., where he has been vice-president in charge of sales since 1914. New branches have recently been opened in Boston, Baltimore, Detroit and Denver, and other branches will open in several additional cities within thirty days.

A Correction

An advertisement of the Aluminum Brazing Solder Co. in Motor World of Aug. 6 gave two prices for the Peters crankshaft grinder—\$75 and \$60. The latter was printed in error, the price being \$75.



CAR MAKERS MAY ASK FOR FUEL STANDARDS

Need Felt for Standardized Gasoline or Re-Designed Engine—Quality Decreasing

DETROIT, Aug. 16—Detroit automobile manufacturers may ask gasoline producers to fix a certain limitation on the quality of automobile fuel. Representatives of the Detroit automobile manufacturing plants composing the Automotive Fuel Club are making a study of the situation, which they declare is serious.

For the producer to prepare gasoline properly before putting it on the market would mean a curtailment in the production and an increase in price. The engineers, however, are convinced that either the grade of gasoline must be standardized and tested up to a certain specific gravity or the manufacturer must continue his costly experience in engine design necessary to meet the steady decreasing quality of fuel.

Figures submitted show that in the last 3 years gasoline for motor fuels has decreased in gravity from 60.5 to 55 and the end point has reached from 300 to 455 Fahr. During the 3 years one factory alone has received seven different grades. Reports from oil companies give the impression that the low grade of gasoline marketed is due to the fact that less of it is being obtained from crude oil and, consequently, more blending with kerosene is necessary.

DUESENBERG MOTOR GOES TO ROCHESTER

NEW YORK, Aug. 16—Manufacturing and selling rights for the Model G-3, four-cylinder engine of the Duesenberg Motors Corp. have been disposed of to the Rochester Motors Co., Inc., of Rochester, N. Y., according to announcement of the Duesenberg company here to-day. Production at the Rochester plant will be under way by Oct. 1, at the rate of about 150 motors a month.

This model is a motor developed by the Duesenberg company early in 1918, but production was stopped because of war work. It develops about 75 hp., according to the announcement, but other details were not given out. Contracts for its use have been made by the companies manufacturing three motor cars, it was said.

The Rochester company, which will call the motor the Rochester-Duesenberg, was organized about twenty years ago as the Rochester Electric Motors Co., but five years ago absorbed the Brownell Motor Co. and changed to the present name.

ALL SPACE TAKEN AT CANADIAN SHOW

OTTAWA, ONT., Aug. 16—All available space at the Central Canada Exhibition, Sept. 6 to 16, for automobiles has been snapped up and there are inquiries for further accommodations.

Practically all dealers have leased space. The automobile show will be staged in the General Purpose Building, the motor car exhibits being ranged around the four sides. The list of exhibitors just released by General Manager J. K. Paisley includes the following: Pink & Blachburn, McLaughlin and Franklin cars; Keyes Supply Co., tires and accessories; Dixon Motors (Ottawa), Ltd., Studebaker, Maxwell, Chalmers and Briscoe passenger cars, and the Denby truck; R. W. Smiley, Gray-Dort passenger car and Fulton trucks; Ottawa Car Co., Overland and Hudson passenger cars and Republic trucks; J. G. McGuire, Chevrolet passenger cars; Ottawa Motor Sales, Dodge Brothers cars; Emmerson Motor Sales, Cadillac, Oldsmobile and Jordan passenger cars; Ontario Motor Car Co, Packard; F. B. Carling, Paige, Cole and Hupmobile passenger cars and Commerce trucks; Russell Beach Motor Co. Saxon cars; Canadian Fairbanks-Morse Company, accessories; S. F. Bowser, Inc., gasoline and oil tanks and

There may be additions to this list, as an effort is being made to provide more space for the automobile concerns.

Goodyear Little Rock Branch

LITTLE ROCK, ARK, Aug. 15—The Goodyear Tire & Rubber Co., Akron, has opened a branch here at 612 Louisiana Street. W. H. Ector is manager of the branch.

THREE MAKERS MERGE TO BUILD NEW LINE

Four-Wheel Drive Company in Jackson Motors Corp.— Make Cars and Trucks

JACKSON, MICH., Aug. 14—A \$5,000,000 passenger car and truck company has been formed here through the merger of the Jackson Motor & Manufacturing Co., the Jackson Automobil. Co., and the Four-Wheel Drive Truck Corp., of Chicago and Port Jefferson, L. I. The new corporation will be known as the Jackson Motors Corp. It will manufacture both cars and trucks, proposing to produce during the next 12 months 4000 automobiles and 1200 four-wheel drive trucks of 3½ ton capacity.

The concern will occupy the present plant of the Jackson Automobile Co. and will employ about 1000 men. The proposed passenger car to be turned out will be of the 6-cylinder type. The company is now operating on a contract with the General Motors Corp. to finish 10,000 coupe and sedan bodies, involving a production of 40 bodies daily.

The officers of the new organization are: President, H. A. Mathews, Jackson; vice-president, W. W. Sterling, Boston; secretary, Carl L. V. Exselsen, Chicago; and treasurer, F. O. Evans. Chicago.

The machinery and equipment of the Four-Wheel Drive Truck Corp. plants at Chicago and Port Jefferson have been shipped to the Jackson Automobile Plant. The Jackson Automobile Co. discontinued the manufacture of its passenger car at the outbreak of the war and went into munition work The first completed machines will soon be placed on sale.

Consulting Mathematicians Form Company

NEW YORK CITY, Aug. 15—Dantz g. Pfeiffer & Ritt have organized a firm of consulting mathematicians, claimed to be the first organization of its kind to enter the commercial field. They will endeavor to solve mathematical problems in mechanism, diagrams and chart work, and problems in aeronautics among other investigations.



Members of the Des Moines Motor Trades Bureau and their

OWEN MAGNETIC CAR LEAVES BAKER PLANT

Manufacture to Be Undertaken by International Fabricating Co.—New Plans

NEW YORK, Aug. 13—Manufacture of the Owen Magnetic at the Cleveland plants of the Baker R. & L. Co. will be given up, according to announcement here to-day, and undertaken by the International Fabricating Co. at Wilkes-Barre, Pa. The details of the new arrangement were made public by R. M. Owen, of the Owen Magnetic Car Corp., designer and builder of the car. The announcement revealed that the Owen company had been entirely divorced from the Baker corporation and that its production in the future would be carried on independently from that of the electric cars of Baker.

The International plant has been engaged in the manufacture of precision machinery, principally making munitions during the war. This company, it was given out, virtually has succeeded to control of the Owen car and manufacture will be gotten under way at once. Advance plans, according to Owen, call for a production basis of at least 1000 cars annually, continuing practically the present line. While only one model will be made, several bodies will be supplied.

W. M. Dennison is president of the fabricating company and has been engaged in varied manufacturing lines for some time. The financial strength was not given out.

The change in ownership, the details of which have been in process for some months, will result in a wide-awake sales policy for the Owen, it was given out, with sales and service stations opened throughout the country.

FORD REVISES PRICE ON FEW REPAIR JOBS

DETROIT, MICH., Aug. 14—A new schedule covering cost of labor on repair work at its branches and agencies has just been issued for 1919-20 by the Ford Motor Co. Distributers and dealers are not required to adhere strictly to this

price list, but it is compiled to aid them in determining upon a reasonable charge for their efforts. It is a revision of the schedule printed in Motor World of June 4, 1919, in connection with the series "Modern Methods in Ford Service." Only those prices showing a change are printed here. The numbers given are the same as previously used.

The most important revision is for the engine division, on parts brought in or shipped in for repairs. This list follows:

	New	
• /	Price	Price
55B-Overhaul motor and trans-		
mission	\$15.75	\$17.00
56B—Overhaul motor only	11.00	12.00
57B—Overhaul transmission only.	4.00	4.75
58B-Rebore cylinder only	1.50	1.75
59B-Rebore cylinder only includ-		
ing fitting of pistons	2.55	2.75
60B-Rebore and rebabbitt cylin-		
der including fitting of		
pistons	3.75	4.50
61B—Rebabbitt cylinder only	1.50	1.75
62B-Rebabbitt cylinder, fit crank-	1.00	2
shaft and run-in	2.25	2.75
63B—Rebore and rebabbitt cylin-	2.20	2.10
der including fitting of		
pistons, crankshaft con-		
necting rod and running-in	5.00	6.00
64B-Rebore and rebabbitt cylin-		
der, fit pistons, valves, push		
rods, camshaft, crankshaft,		• • •
connecting rods and run-in	7.50	9.00
65B-Rebore and fit pistons and		
valves	2.75	3.25
66B-Rebore and fit pistons,		
valves and push rods and		
straighten and fit camshaft	3.50	4.25
67B-Fit pistons, crankshaft and		
run-in (rebored block)	1.25	1.50
68B-Rebush three transmission		
drums	1.50	1.50
69B-Rebush transmission drums		
—each	.60	.60
70B-Rebush and re-rivet three		
triple gear assemblies	1.25	1.50
71B-Braze crankcase, arms and		
support	3.00	2.50
72B-Repair crankcase, drain plug		
housing	2.00	2.50
73B—Overhaul or repair carbu-	2.00	5.00
10D-Overlight of Tepair Carbu-	1.00	1.25
reter	1.00	1.20
3/4" magnets for flywheel		
	.60	.60
and install new set	1.00	1.25
75B—Straighten crankshaft	.60	.60
76B—Straighten camshaft	.00	.00
77B—Straighten camshaft and fit		
bearings	1.00	1.25
Operations 71B and 72B combined		
on one order	3.00	3 .75
A Jackian from 97 to 96		40 00

A reduction from \$7 to \$6 is made on Job No. 96, which is on the rear system for cars driven in, listed as "overhaul rear axle and rebush springs and perches when necessary."

In the body division, two reductions are made. Job No. 423 is changed from \$6 to \$5 for "taking dent out of any side panel and refinish," while on No. 426 a reduction to \$6 from \$8 is made to "take dent out of rear or corner panel without removing from car."

Other prices are unchanged.

DETROIT TO HOLD SHOW DURING FAIR

Dealers Prepared to Exhibit All New Models of All Lines

DETROIT, Aug. 16—Detroit's second automobile show this year will start Aug. 29 and continue during the week of the Michigan State Fair. The exhibit will be staged in the automobile show building. All exhibit space applied for cannot be taken care of because of the state and federal exhibits on the second floor of the building.

The Overland company, represented here by the Simons Sales Co., will exhibit all models, including the new Overland four. The M. A. Young Co. will show the Mitchell six and Peerless lines, also the new Allen model which will be seen in Detroit for the first time. The Michigan Mercer Co. is to exhibit the Mercer and Templar cars. The Reo Motor Car Co. will show its sedan, truck and speedster. Thomas J. Doyle will show Dodge cars.

The Ford Motor Co., besides showing all models, has just completed a moving picture theater which is to feature in the Ford display. The Columbia will be shown by the Stuber-Stone Co. The W. D. Block Co. will have a few new Lexington models on display. The Thompson Auto Co. will be represented by a full line of Maxwell and Chalmers cars.

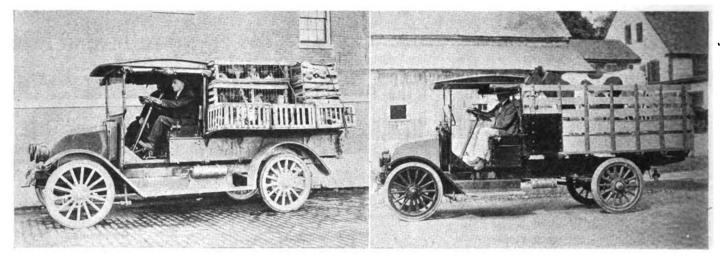
Other automobiles which will be seen include the Saxon, Hupmobile, King, Scripps-Booth, Cadillac, Packard, Studebaker and Oldsmobile.

Studebaker Production High

NEW YORK, Aug. 15—Reports made by the Studebaker Corp. are that the company is now producing at the rate of 4200 cars a month and expects to continue that figure for the second half of the year. A total of 40,000 cars for 1919 is thus forecast. The new building of the South Bend units are expected to be under roof in December, with new cars being turned out in March. Government work, except for about \$2,500,000 that should be completed within thirty days, is practically cleared up.



families on the first annual frolic at Union Park, August 5



Showing some loads on the two-ton truck operated by Ott Bros. of Staunton, Ill., from that city to St. Louis, Mo., a distance of 50 miles, made on a schedule requiring, with stops at nine points, a total of five hours. Operating costs, as figured out by Max A. Ott, one of the brothers, run \$17.43 a trip, the load being of 4000 pounds, for which there is an income of \$24. The costs are given as gasoline \$2, oil and grease \$0.25, tires \$1, depreciation \$0.50, labor \$10 and overhead \$3.68. An outline of this was given in Motor World of June 19. 1919

SLIGHTLY INCREASED PRODUCTION IN JULY

Many Car Makers on New Series —Labor and Material Markets Improve

DETROIT, Aug. 16—Production in Michigan and Ohio automobile factories during July shows but slight variation from June production. In some of the factories, Oakland, Saxon, Paige for example, production was less than during the previous month, owing to the completion of their present line and the commencement of work on new car series. The Ford Motor Co. was closed four days for inventory and for a few days prior to closing full production of 3000 cars daily was not maintained.

Counterbalancing these production cuts, however, is Willys-Overland production which averaged better than 200 cars daily in July. This company did not produce a single machine in June owing to the strike which has been on for three months and which is still in effect.

Now that most of the factories have started production on their new car series, coupled with great improvement in labor and material situations, the month of August should see new production records attained.

Detroit has been remarkably free from labor disturbances during July. Although Wadsworth, L. A. Young Industries, Timken-Detroit Axle Co.; and a number of foundries have men on strike, these plants are rapidly nearing normal production again and no new trouble has developed in the ranks of the industry.

This improving labor situation is having its direct influence on the material situation which was badly affected by strikes in the plants of the part makers. Material is now coming through freely and in greater quantities.

During July 33 factories in the two

states ran a daily average of 6784 cars. During June, 6649 cars were turned out daily by the same companies.

Daily Automobile Production Company June July

Buick	500	500
Briscoe	75	75
Barley	10	10
Cadillac	70	70
Chalmers	60	65
Chandler	100	90
Columbia	30	30
Chevrolet	720	730
Dodge	450	375
Dort	100	100
Ford	3000	.3000
Harroun		
Hudson	110	110
Hupp	75	75
King	12	15
Liberty	40	40
Maxwell	200	200
Oakland	265	250
Olympian	12	15
Oldsmobile	140	140
Overland		200
Packard	25	25
Paige	75	75
Paterson	15	15
Jordan	15	15
Maibohm	7	15
Reo	125	125
Saxon	30	30
Scripps-Booth	50	55
Studebaker	165	165
Peerless	10	12
Winton	10	12
Essex	110	110
Grant	40	40
Total	6649	6784

Buick Carbureter Corp. Formed

DETROIT, Aug. 14.—David Buick, T. D. Buick and W. R. Buick have formed the Buick Carbureter Corp. with a capital of \$3,000,000.

ROCHESTER DEALERS HOLD FIRST ANNUAL PICNIC

ROCHESTER, N. Y., Aug. 14—In celebration of their first year on a cash basis accessory and tire dealers of this city held their first annual picnic and outing at Manitou Beach yesterday afternoon. All accessory and tire stores in town were closed for the event.

A program of athletic sports and a ball game, between the retailers and the manufacturers, which was scheduled for only five innings but had to be extended to nine innings to play off a tie, occupied the afternoon. Dinner was served at 5.30 at Hotel Manitou.

Highways Transport Committee Named

WASHINGTON, Aug. 15-The Highways Transport Committee of the Council of National Defense has been appointed to help develop and maintain the highways of the country and to increase transportation resources. Clifford Shoemaker has been named to represent the Bureau of Public Roads on this committee to succeed J. M. Goodell, who resigned. John W. Halowell, assistant to the Secretary of the Interior, will represent that department, and Lieut.-Col. J. M. Ritchie of the Motor Transport Corps is representative of the War Department. Other members of the committee are: Hon. James I. Blakslee, Fourth Assistant Postmaster General, Post Office Department; James H. Collins, Investigator in Market Survey, Bureau of Markets; Dr. R. S. MacElwee, Assistant Director of the Bureau of Foreign and Domestic Commerce, Department of Commerce.

Beeman Drops Garden

MINNEAPOLIS, Aug. 14—The Beeman Garden Tractor Co. has dropped Garden from its name, and will now be known as the Beeman Tractor Co., and its products as the Beeman tractor.



COMING EVENTS

Races, Co	ntests and Tours	Ottawa, OntOct. 14-16Tractor and Farm Machi ery. Experimental a
Elgin, IllAug. Uniontown, PaSept.	23Road race.	Booth Farms, Inter-Pr vincial Plowing Match a
Sheepshead Bay, N. Y., Sept.	20Speedway.	Tractor Demonstration.
Allentown, PaSept. Trenton, N. JOct.	27Dirt track event.	Shows
Cincinnati, OOct. Danbury, ConnOct.	11Speedway.	Harrisburg, PaAug. 26-29 Car, truck, tractor a r
Paris, FranceJuly,	1920 Grand Prix Race, Sporting	equipment show in conne tion with Grangers' Pict
	Commission, Automobile Club of France.	at Williams Grove, Harr burg Motor Dealers' As:
₩.	leetings	MinnesotaAug 30-Sept. 6.State Fair.
	3 Annual Meeting of the Auto-	indianapolis, IndSept. 1-6State Fair. Cars and Accessories. Indianapolis Au
New York City	motive Service Assn. of	mobile Trade Assn., Jo
	New York, N. A. C. C. Rooms, 7 E. 42d Street.	Greenville, S. CSept. 1-6Agricultural Implements a
ChicagoSept.	8-9Industrial Conference, Illino's Mfrs. Assn., Congress	Tractors. F. M. Burne General Manager.
Duffelo N. W	Hotel.	Cincinnati, ()Sept. 13-20Ninth Annual, Music H. Cincinnati Automot
sunaio, N. 1sept.	11-12Annuai Credit Manufactur- ers Convention, Motor &	Dealers' Assn., H. Shockley, Manager,
	Accessory Mfrs. Assn., Hotel Lafayette.	Springfield, MassSept. 15-20Eastern States Exposition.
Philadelphia, PaSept.	22-24Annual Convention, National Association of Purchasing	
	Agents, Bellevue-Stratford.	New York CitySept. 24-Oct. 3. New York Electrical Expotion, Electric Cars, Truc
	1Directors' Meeting, National Automobile Dealers' Assn.	and Equipment, Gra
levelandOct. 1	-4Eighth Annual Safety Con- gress of National Safety	Central Palace. Detroit, MichOct. 6-11Closed Cars: Detroit Deale
	Council.	Pittsburgh, PaOct 11-18 Fall Show
	9-10Second Annual Convention, Louisiana-Mississippi Assn.	Ft. Dodge, IaOctoberFall Motor Show, Distr
tlantic City, N. JOct. 1	4-17Twenty-fifth Annual Conven- tion, Marlborough - Blen-	Chicago, Ill
	heim, National Hardware	tive Equipment Assn., M
	Association of the United States.	New York CityNov. 16-23Automobile Salon, Hotel Co
Vashington, D. COct. 2	29First Annual Labor Confer- ence provided by Peace	New York, N. YJan. 3-10Grand Central Palace, N
hisses III Nov	Treaty. 3-8Convention, Automotive	tional Automobile Cha ber of Commerce, S.
meago, m	Equipment Assn., Medinah	Miles, Manager. New York CityJan. 3-10Eighth Coast Artillery A
ondon. EngNover	Temple. nberRoad Transport Congress	mory, Commercial Cars a
ouisville KvFeb	and Exhibition. 9-13Seventeenth Annual Conven-	Accessories. Chicago, IllJan. 24-31Coliseum, Cars: Drexel F villon: Trucks, Natio
ouisvino, ity	tion American Road Build-	vilion; Trucks, Natior Automobile Chamber
	ers' Assn.; Tenth American Good Roads Congress and	Commerce, S. A. Mile
	Eleventh National Good Roads Show.	Manager. ChicagoJan. 21-31International Amphitheate
an Francisco, CalMay 1	5-20Seventh Annual Foreign Trade Convention.	Commercial Cars and A cessories.
	Trade Convention.	Deadwood, S. DFebruaryAnnual S how, Deadwood Business Club. F. R. Bal
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CHANGES In the Trade

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Emien S. Hare, vice-president of the Packard Motor Car Co., Detroit, has resigned. His career with the Packard company started as truck salesman in New York, then sales manager and president. He resigned as president to become vice-president of the parent organization in Detroit. He has announced no future plans. His successor will be named at the directors' meeting of the company early in September.

W. S. McNamara, for the past year manager of the Portland branch of the Ford Motor Co., has been transferred to Scattle as manager of the Ford branch there. He will be succeeded in Portland by A. S. Stellwagen.

L. F. Seaton, professor in charge of the department of mechanical engineering of the Nebraska State University, has been named production manager of the Hebb Motors Co., makers at Lincoln, Neb., of the Patriot truck. Prof. Seaton has been head of the motor instruction department of the university for five years and the army mechanical laboratories there last year were under his supervision.

C. Thomas Edward of Chicago has become general manager of the U. & J. Carbureter Sales Co., 1907 Euclid Avenue, Cleveland.

Hugh G. Pohl, after eighteen months overseas as a sergeant, has rejoined the Eley-Kessler Co. of Cleveland, distributers of Republic trucks.

Charles F. Barth, manager of the engine and axle department of the Chevrolet Motor Co., Flint, Mich., has been promoted to general manager, while Thomas E. Houghton, manager of the assembly department, has been promoted to factory manager of the company.

Warren E. Griffith, Toledo automobile dealer, has been elected president of the Toledo Chamber of Commerce.

Charles C. Waish has been appointed sales representative for Michigan and Indiana for F. R. Blair & Co., Inc., New York City, manufacturers of Flexite products.

Oscar M. Allen, auditor of a bank at Lansing, Mich., has resigned to become auditor for the Detroit factory branch of the Reo Motor Car Co.

O. J. Ridenour has been named vice-president and general manager of the National

Chain Co. of New York. He formerly was assistant general manager and recretary of the Wright Martin Aircraft Corp., and before that general manager of the Star Expansion Bolt Co.

Walter C. White, vice-president of the White Co., Cleveland, has been made a chevalier of the Legion of Honor by the French Republic, in recognition of the service rendered to France by the White company during the war.

Burch D. Arthur is manager of the New York branch of the G. A. Schacht Motor Truck Co., Inc. He was formerly sales manager for the Interstate Motor Co., Muncie, Ind. In his new position he succeeds the late F. L. Reed

Raiph W. Cook has been named general and sales manager of the Automobile Sales Corp., Philadelphia, distributer of the Cadillac. Cook has been a captain in the motor transport corps on duty overseas.

H. G. Vanderhoef has been promoted to general sales manager of the hard rubber and electric storage battery jar department of the Brunswick-Balke-Collender Co., Chicago.

Sam J. Turnes, advertising manager of the Brunswick-Balke-Collender Co., Chicago, becomes general sales manager of the tire department, to succeed John W. Maguire, who resigned.

C. G. Sinsabaugh has been appointed referee for the Elgin races, Chicago, Aug. 22 and 23.

Judge S. A. Hubbard has been appointed legal representative of the Quincy Dealers Auto Trade Association.

Dan Sprinkle has been appointed service manager for Morris McLoney Co., Springfield, Ill., Cole distributer for this territory.

Fred Weilman has been appointed advertising manager of the National Motor Car & Vehicle Corp., Indianapolis, to succeed Lucius French, who resigned to become secretary of the Western Oil Refining Co., also of Indianapolis. Mr. Wellman has been associated with Carl G. Fisher of Prest-O-Lite and Indianapolis Speedway fame for the past four or five years as advertising manager of various Fisher enterprises.

Herbert L. Boehm, a well known figure in automobile circles in New York and other eastern centres, has become associated with the investment securities house of E. H. Clarke, Inc., New York. He was formerly with the Hudson Motor Car Co. of New York.

Robert P. Lay has been appointed special engineer in the engineering department of the H. H. Franklin Mfg. Co., Syracuse, N. Y. He was formerly assistant chief engineer of the Curtiss Engineering Corp., Garden City, N. Y.

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Clarence M. Baldwin, who served on the Motor Transport Advisory Committee of the National War Work Council of the Y. M. C. A. during the war, left the committee when its work decreased and rejoined the Packard Motor Car Co. in Brooklyn.

E. H. Geyer will have charge of the Eastern or Atlantic district of the Hercules Motor Mfg. Co., Canton, O., covering New England, New York, New Jersey, Pennsylvania, Delaware, Maryland and the eastern coast, with headquarters at Buffalo, N. Y.

D. I. Cooke will be in charge of the Central district of the Hercules Motor Mfg. Co.. Canton, O., with headquarters at Detroit. comprising Ohio, Indiana, Michigan, Kentucky, Tennessee, Alabama, Arkansas and Texas.

Allen Kendall will represent the Mid-West district of the Hercules Motor Mfg. Co., Canton, O., with headquarters at Chicago, which takes in Illinois, Wisconsin, Minnesota, Missouri, Nebraska, Kansas and the Dakotas.

George McMullen will have the Pacific Coast territory, covering the territory west of the Rocky Mountains, for the Hercules Motor Mfg. Co., Canton, O., with headquarters at San Francisco.

L. W. Cash, for the past two years purchasing agent of the Wisconsin Parts Co., formerly the E. B. Hayes Machinery Corp., Oshkosh, Wis., has resigned his position, to take effect Sept. 1.

Arthur H. Blanchard has been appointed professor of highway engineering at the University of Michigan to occupy the chair recently established. He will retain his consulting office in New York City until Sept. 15, after which he will be in Ann Arbor, Mich.

Leroy Rhodes has been appointed engineer in charge of farm machinery and farm buildings in the University of Nebraska department of agricultural engineering. He returned recently from ten months' service as a lieutenant in the aviation section in France.

H. M. Bacon has been appointed general sales manager of the McGraw Tire & Rubber Co., with headquarters at the company's main office in Cleveland. He comes from the Diamond Rubber Co., where he has been in charge of sales since 1914.

Earl W. McGook, vice-president of the M. V. Kelley Co., advertising agents, New York and Toledo, who resigned some time ago, will return to Detroit to resume his work as manufacturers' representative.

Herbert Watkins is the new manager of service for the Paige Sales & Service Co., Detroit.

Sent 22-28..... Automobile show, in connec-

COMING EVENTS

(Continued from page 47)

Hutchinson, KanSept.	13-20Cars, Trucks and Tractors.
Sioux City, IaSept.	14-20Cars, Trucks and Tractors.
Yakima, WashSept.	15-20Cars, Trucks and Tractors.
Springfield, MassSept.	15-20Cars, Trucks and Tractors. O. A. Nash, Asst. Gen. Manager.
Dillings Mont Sent	16-19 Cars, Trucks and Tractors.
Memphis, TennSept.	20-27Cars, Trucks and Tractors.
Oklahoma City, OklaSept.	20-27Cars. Trucks and Tractors. J. S. Malone, General Manager.
	22-27Cars, Trucks and Tractors. J. L. Beaman, Manager.
Salem, OreSept.	22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn., M. O. Wilkins, Mgr.
Allentown, PaSept.	22-27Lehigh County Agricultural

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tary.
Kansas City, KanSept. 24-Oct. 4. Cars, Trucks and Tractors. Muskogee, OklaSept. 29-Oct. 4. Cars, Trucks and Tractors.
Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. H. George, General Manager.
Chattanooga, TennSept. 29-Oct. 4Chattanooga Auto Dealers' Assn.
Brockton, MassSept. 30-Oct. 3 Cars.
Lancaster, PaSept. 30-Oct. 4 Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Dealers' Assn.
Northampton, MassOct. 1, 2, 3Three-County Fair. S. E. Hickman, Mgr.
Dallas, TexOct. 6-19Cars, Trucks and Tractors. Texas State Fair.
Raleigh, N. COct. 20-25Cars, Trucks and Tractors. Shreveport, LaOct. 22-27Cars, Trucks and Tractors.
Jacksonville, FlaNov. 22-29Florida State Fair and Ex- position, B. K. Hanafourde
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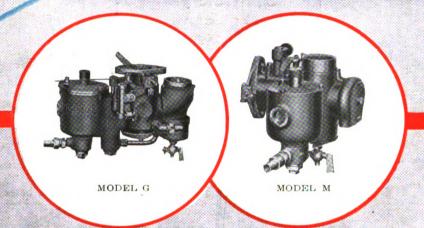
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Farm Tractors

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Volume LX Number 9 NEW YORK, AUGUST, 27, 1919

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Practically any tractor will plow. But Model "D" Bates Steel Mule completely prepares the seed bed from plowing to planting—plows, discs, harrows, rolls, plants. For it does not and cannot pack the softest soil. Its weight—3.5 pounds per square inch of track surface is no greater than the weight under the shoes of a small boy.

Crop Yield Increased

Visit the farm of any owner of Model "D" Bates Steel Mule and ask him to run it over the freshly plowed ground. Scoop up the ground immediately behind the crawlers. Note that it is exactly as loose as the rest of the field—that there is no soil pack-

ing.

Next visit some farm on which other type tractors are used. Note how much smaller the crop planted in the wheel tracks than that planted between the wheel tracks. Note how soil packing of heavy tractor wheels has held back the growth—forced moisture from the soil—packed the growth—soildly that life-giving air scarcely reaches the seeds. Compare this with the full, even yield all over the farm using Bates Steel Mule. Think of the value of this increased yield with the present food prices.

Horse Upkeep Reduced

Because Bates Steel Mule completely prepares the seed bed in all weather conditions and works even through mud holes, it is unnecessary for owners to retain as large a number of horses on their farms as it is when other types of tractors are used. Ask any owner. Bates owners get an immediate profit from the sale of more horses than is possible with other tractors and a continuous saving in feeding and upkeep.

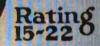
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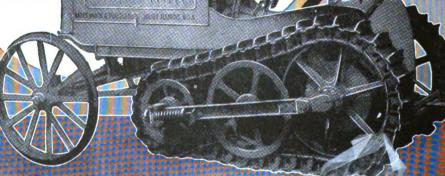
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"NORMA" PRECISION BALL BEARINGS



Nothing will more completely stop a car, truck, tractor or power boat than the failure of a magneto bearing. Nothing will more certainly limit its service than the failure of a bearing in its lighting generator. Is not serviceability, then, a vital essential in these small bearings?

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EXECUTIVE OFFICES

MOTOR WORLD, Editorial Department, 239 West 39th Street, New York City.

Gentlemen:

Accept my congratulations on the splendid educational articles on modern methods for Ford service that have been running in MOTOR WORLD for the past few weeks.

July 10, 1919.

Have just returned from a very extended trip throughout the United States, and have talked with a great number of Ford dealers. I found all of them keenly interested in the series, and from my own earlier experience as owner and operator of large Ford service stations can assure you that these articles are of great benefit and absolutely practical in their application.

It is this kind of educational campaign work that wakes the dealers up to the possibilities of labor-saving machinery, and it is this kind of campaign work on your part that makes MOTOR WORLD so invaluable to the worth while men throughout all branches of the automotive trade.

The fact that after careful investigation of media we are running more of our advertising copy in MOTOR WORLD than in all other trade papers combined is substantial testimony of the fact that we are appreciative of the good work you are doing, and it is interesting to note that the results completely justify our advertising policy.

Yours very truly,

THE FAIRBANKS COMPANY

Sales lianager.

AUTOLOBILE & SERVICE STATION
EQUIPMENT DIVISION

AMCH'Rea

SCALES.

and BALANCES

VALVES and COCKS

TRUCKS and WHEELBARROWS

CASTERS and DRAG SCRAPERS

ENGINES and PUMPS

MACHINE TOOLS

BENCH LEGS

TRANSMISSION-

MILL, MINE and RAILWAY SUPPLIES

AUTOMOBILE and SERVICE STATION EQUIPMENT



AGENCY FOR SELDEN TRUCKS IN TOKYO, JAPAN

The Selden Sales Organization is world-wide in its scope—necessitated by the universal demand for SELDEN TRUCKS.

In most foreign cities of any size or importance, you will find SELDEN TRUCKS in operation. In many there are more SELDEN TRUCKS than any other make.

This widespread distribution of SELDEN TRUCKS alone is signifi-

cant of their merit and of the value of the Selden Dealer Franchise.

Some of the largest and most successful distributors of motor trucks in the world are SELDEN Dealers.

We shall be glad to present the Selden Dealer proposition to motor truck or passenger car dealers or to interested capitalists in any territory where SELDEN TRUCKS are not at present being sold.



1877-1919
The first gasoline motor propelled road wagon in all the world was a SELDEN. The present types of SELDEN TRUCKS are the product of 42 years of continuous experimentation, observation and experience in manufacture since the day of their inception in 1877.

1, 11/2, 2, 31/2, 5 Ton WORM Drive Models

SELDEN TRUCK SALES COMPANY

ROCHESTER, N.Y., U.S.A.

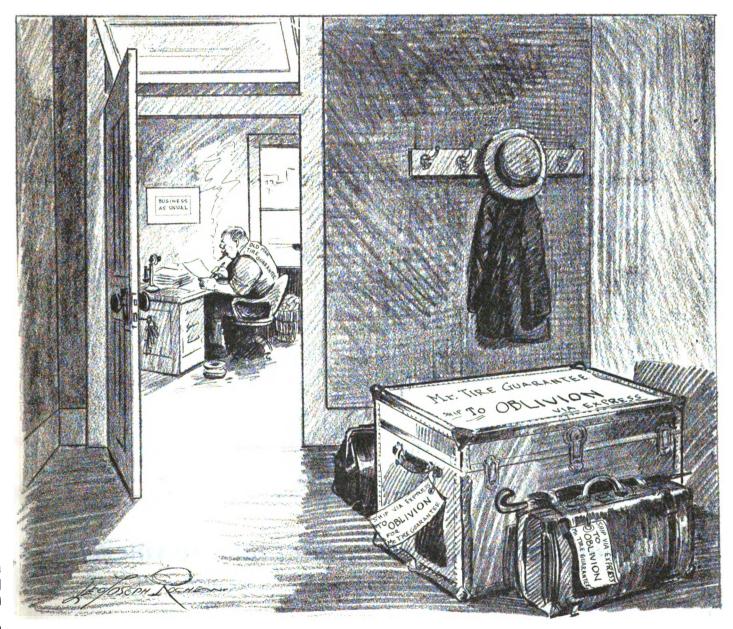
Selden Motor Trucks

Vol. LX

New York, U. S. A., Wednesday, August 27, 1919

No. 9

Still Here, But—!



About one more letter from YOU to Old Man Tire Guarantee and there will be a vacant office. Write to the company that makes the tire you sell

It's Coming!

NO MORE TIRE

Leading manufacturers frankly admit a desire to bring about the reform. They are holding conferences and are on the verge of definite action. To turn the tide nothing would be more effective than letters from dealers to makers of the tires they sell.

HE movement to eliminate tire guarantees is gaining tremendous momentum.

It needs only the word of two or three big manufacturers to attain immediate realization.

Inre dealers the country over are for the reform. Their letters, pouring into the office of Motor World, indicate that. All that is needed to turn the tide is to direct these letters the way of the manufacturers, so that the obstacle of false practice, set up in the infancy of the industry, will yield to the demand of the trade—AND TO THE INCLINATIONS OF THE TIRE MAKERS THEMSELVES.

There is no fiction about these inclinations.

In the New York offices of several of the greatest tire producing corporations meetings of manufacturing, financial and sales executives have been held during the past few days—AND THEY HAVE DISCUSSED WAYS AND MEANS OF DOING AWAY WITH GUARANTEES.

Almost without exception the opinion has been expressed that the guarantee is the root of all the bitter, unnecessary, development-strangling competition which has handicapped one of the nation's great industries.

A highly placed tire official declared that in the present stage of the trade the guarantee could serve but one useful purpose—to help a manufacturer "come back" after a season of bad tires. BUT WITHOUT THE GUARANTEE TO FALL BACK ON, HE DECLARED, STRICTER ATTENTION WOULD BE PAID TO COMPOUNDS, AND THERE WOULD

BE NO SEASONS OF BAD TIRES. Without the guarantee "dodge" in advertising good tires would sell on their merits and poor tires would be forced out of the market—WHICH IS AS THINGS SHOULD BE.

Write to the manufacturer of the tire you sell

Send us a copy of the letter you write



GUARANTEES

Further meetings of tire executives are in prospect, and the time is ripe for a campaign of dealers' insistence on a sane merchandising policy—to help the manufacturers make up their minds. And a big manufacturer is authority for the statement that opinions of dealers would be an effective influence.

Somebody has to start something. Let a leading manufacturer, or two or three of them, announce flat-footedly the elimination of all guarantees and the scramble to get on the reform band wagon will make a college cane rush look sick for speed and action.

And the dealer in tires who writes HIS manufacturer, advocating the reform, will be a factor, to his own advantage, in prompting the stampede.

What Manufacturers Say

Meanwhile, letters to Motor World from manufacturers are straws which show the way the wind is blowing.

The Kelly-Springfield Tire Co. wrote recently that it regarded the mileage guarantee of sufficient value to retain it. Since then Otis R. Cook, vice-president and general sales manager, has written as follows:

Guarantee "Race" a Joke

There never should have been a guarantee of mileage placed on an automobile tire, in the first place, but due to the fact that the precedent has been established and run for so many years and that the question for the past few years has been to see who could put the largest tire adjustment on pneumatic tires, it has resulted in the whole matter becoming a joke with the buying public, particularly so as it applies to the various highly competitive makes that have recently come out with largely increased guarantees as a stimulant for a large sales program.

Regardless of the mileage on which we agree to adjust our tires, we agree to give satisfaction; when a man can buy a Kelly-Springfield tire in any part of the United States that he wants to, irrespective of the amount of mileage that the tire performs, we stand ready to make good, if the burden of proof shows that the tire is defective due to inferior workmanship or quality in its construction. We believe that the time will arrive with the Kelly-Springfield Tire Co. when the advertised guarantee of specific mileage will be eliminated entirely and we will guarantee to give tire satisfaction where the burden of proof shows that the defect, if any, is in the manufacture or the quality of our goods.

Swinehart Backs Movement

Can you furnish the writer with about twenty-five reprints of your recent editorial on "No More Tire Guarantees," for distribution among our various branches?

You have made a wonderful start toward blowing up this guarantee bubble, and your efforts ought to be appreciated by any man who has anything to do with tires.

Guarantees Camouflage

We are in hearty sympathy with your campaign for the elimination of the tire guarantee. If the word "camouflage" ever described anything, it very accurately describes the elusive tire guarantee.

Write to the manufacturer of the tire you sell

Send us a copy of the letter you write

...,Coogle

NO MORE TIRE GUARANTEES

We hope you will continue your campaign until the whole matter is brought properly to the attention of the public, and the evils corrected.

Minneapolis Dealers Act

The Minneapolis Tire Dealers' Association recently went on record unanimously for elimination of guarantees, according to the following advice from J. N. Johnson Co., Inc., tire and rubber wholesalers in that city:

At the last regular business meeting of the Minneapolis Tire Dealers' Association, held August 14, the double page editorials appearing in your July 30 and August 6 issues respectively were read and discussed extensively. The entire organization were unanimous in favor of no more tire guarantees.

We are for the three articles:

"Let's cut it all out."

"Do a better business."

"Sell tires on merit only."

The principles outlined in your editorial should be put into practice immediately. This fills a long-felt want and will no doubt be approved by all tire dealers, jobbers and distributers throughout the country.

You are to be congratulated for starting this propaganda, and sincerely trust you will not run out of printer's ink putting this over the ton.

We wish you success in this splendid undertaking which will put the tire business on a higher plane and in a class with other lines of merchandise.

Letters from Dealers

Dealers' letters reaching Motor World are unanimous for elimination of the guarantee. Extracts from some of them follow:

Look for Word from Makers

Fairmont Auto Supply Co., Fairmont, W. Va.:

We heartily endorse this movement, and await with great interest the announcement of the leading companies that they have abolished the guarantee.

This adjustment policy has caused abuses upon the part of numerous car owners, and ill-feeling toward tire makers, as we well know, and has been quite a bother to us, as we know that in a lot of cases from our knowledge of

tires that customers were not entitled to any adjustment.

Keep up the good work.

A Big Idea

Your campaign for the elimination of mileage guarantees on tires is one of the biggest and best ideas I have yet seen in your valuable magazine.

Twelve years in the tire repair and tire selling business has taught me every angle of the tire adjustment evil. I believe every tire manufacturer recognizes the injustice of the definite mileage bugaboo, and I have often wondered, as this great industry advances, why they continue this paradoxical idea. My idea would be to kill forever the mileage guarantee and have the manufacturers launch a comprehensive campaign of instruction through their distributers and dealers to the consumer on the care and limitations of the tire.

I believe that 95 per cent of the tire users do not know what constitutes a defect or causes the retirement of the casing from service. Lack of education along these lines is due entirely to the so-called protection of the mileage guarantee, because the average purchaser goes away with the idea that he is protected regardless of what happens to his tire. When an adjustment is refused because of abuse or accident the dealer loses a customer and the gyp tire dealer gets another victim.

I hope you will continue this campaign till the great tire industry is stabilized and every tire sold on its own merits.

No Argument for Guarantee

J. H. McGraw & Sons:

You have completely covered the tire selling proposition and, from our experience as a retailer, you have absolutely covered every point that comes up in the tire game.

We sincerely hope that the tire manufacturers will take cognizance of this article and give it serious consideration, because from our viewpoint there is absolutely no argument that can be made to stand against your published arguments.

Jobbers' Tire Troubles

Lee-Coit-Andreesen Hardware Co.:

We note with great pleasure your articles on the elimination of tire adjustments, and think that this is a step in the right direction.

Write to the manufacturer of the tire you sell

Send us a copy of the letter you write

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NO MORE TIRE GUARANTEES

We are jobbing three different lines of tires and have had some very bitter experiences with same, solely on the adjustment proposition.

At one time we found that out of sixty-two tires returned to us, and after having same examined by an expert, there were only two which were really defective, with the third one in doubt.

It has been the writer's experience in five years of the tire game that with few exceptions all standard tires which are on the market at the present time will give their full mileage service if used as a tire should be used, and, therefore, never have been able to see the need of the unlimited adjustment policy which the tire manufacturers have advocated.

Guarantees Foolish

P. M. Quien, Napa, Cal.:

I have just read your editorial in issue of July 30 headed "No More Tire Guarantees" and am writing to express my hearty approval of the reform you advocate.

Let us do away with all this guarantee foolishness and sell tires as we do accessories or any other line of merchandise.

A Needed Reform

Fort Dodge Automobile Co., Fort Dodge, Ia., by A. C. Heath:

I was mighty glad to note the interest taken in the tire adjustments. It seems to me that this is something that should have been done a long time ago. There are so many new factories springing up that are using the five and six thousand mile argument it is hard to believe you will be successful. Anyhow, here's hoping you are.

Push It Through

C. R. Pierson, Medina, N. Y.:

Too busy to write much, but want to compliment you on "No Tire Guarantee" articles. Good stuff; push it through. We handle Racine tires and I hope you win on no guarantee.

An Editorial

The tire guarantee elimination campaign was vigorously endorsed in a recent issue of *Hardware Age*, many of whose subscribers are tire dealers. In part, the editorial said:

Motor World moves the elimination of auto-

mobile tire mileage guarantees. Hardware Age heartily seconds the motion.

The system is ancient, unfair, foolish and pernicious. It is ancient in that honest dealers dealing with four-square manufacturers need no guarantee other than good materials and fair workmanship. It is unfair in that it permits a new, untried, inexperienced maker to blow the same sales trumpet used by tried and tested manufacturers of tires. It is foolish in that the mileage guarantee does not take into consideration the rough, stony country roads one car may travel constantly, or the even, easy pavements over which more favored wheels may roll. It is pernicious in that it is an open invitation to the petty crook and the willing liar.

Mileage guarantees stink to high heaven and the smell of burning rubber will never remind the angels of attar of roses.

While the actual gains of loud-mouthed customers who "get-away-with-it" on tire adjustments amount to but little when compared with the nation's tire bills, there is an unrecorded loss tremendously detrimental to the makers of good tires. That is the loss of good distributers, the loss that comes from the driving of many good merchants from this field.

Motor World swings a husky wallop when it says that the tire manufacturers should come out and tell the public that they are selling products—not premises.

The mileage guarantee on automobile tires has dug its own grave. There are few mourners and among them are no distributers.

Kill the Guarantee Farce

Smith's Tire Spot, Detroit, Mich:

May I voice a word of praise in regard to your suggestions to eliminate all mileage guarantees on casings. I am sure thousands of dealers all over the United States are watching this campaign of yours in the hope that it will spell the death knell of this farce forever.

There is no question in my mind that car owners are absolutely disgusted with this nonsense, nevertheless they feel on investing their money in a tire they should receive an assurance from somebody that the tire will at least behave for a reasonable time.

The problem is in the hands of the manufacturers, who might profitably eliminate salesmen for tires that sell themselves and put the money spent in this way into service.

Write to the manufacturer of the tire you sell

Send us a copy of the letter you write

а примента принципалните применение примене

WHEN SHOULD THE

- 1. Is Mid-Winter a Bad Show Time?
- 2. Should Shows Be Held in the Fall?
- 3. Should They Be Held in the Spring?
- 4. Should There Be Both Spring and Fall Shows?
- 5. Should They Remain as They Are?

Some New York dealers, men who put out from their own sales floors and through sub-agencies hundreds of cars a month, believe it is worse than useless, falling on the eve of the spring season, when the whole world, or at least the portion with money in its pockets, thinks cars and buys cars.

They would do away with the winter show and concentrate on an autumn display, when the majority of new models are just getting into quantity production, and buying, without a stimulant, has a tendency to go dead.

Their plan is to give purchasers the benefit of owning new type cars FROM THE TIME THEY ARE NEW, close upon the heels of the August and Septem-

ber announcements, at the same time smashing the superstition—these men insist there is one—in the shadow of which prospects insist on waiting for the show to view the latest models and make their selections.

With the same stroke, these dealers declare, they would advance by many weeks deliveries of passenger vehicles sold on paper in the fall and early winter, incidentally killing for all time the bogey of the normal automobile year — SEASONAL

SALES. The suggested innovation, however, is not without its opponents. Old timers and newcomers on the row—and they outnumber the "revolutionaries"—are positive it would never do. Sales will fall flat around the holidays, and the weeks preceding them, they declare, fall show or no fall show.

And an elaborate display of cars, an event of the winter in the town where it is staged, IS NECESSARY TO INJECT NEW LIFE INTO THE TRADE AND GIVE THE SPRING SELLING SEASON A FLYING START.

But few are satisfied with winter show dates right after the holidays. The preference is for an exhibit in mid-February or early March, when the lure of the open highway is strong for the man or woman

wearied with indoor recreations, and the mind naturally turns to the joys of motoring. There's psychology in the problem, they say, and the fag end of winter is the time to get things humming with a snap that will energize the whole year's business.

Of course the discussion is based on conditions existing in a normal year. A dealer with cars can sell them now in any kind of weather. His problem is not sales, but deliveries. But foreminded men are thinking of seasons to

NEW YORK'S automobile row, which starts on Broadway a few blocks north of Times Square and breezes on quite some distance beyond Columbus Circle, is agog over the query:

Shall the mid-winter shows give way to fall exhibits of automotive products?

Some dealers favor an October date, believing it would kill the dull season bogey. Others hold that tradition, and the advantage of stirring a public housed in by months of cold weather, with the call to the open road, make a winter show imperative.

On the suggestion of a standardized autumn date the noes seem to have it.

What is the sentiment in your city?

SHOWS BE HELD?

Sholes Says:

THE mid-winter show is next to useless.

It calls on the trade to spend large sums of money to stimulate sales on the eve of the year's natural buying season.

It puts on display models that are ancient history and operates to keep the public from buying them when they are new—in the early fall.

I believe concentration of effort on a fall show would

Put money into dealers' pockets and move cars out of salesrooms in the dull months that come with the end of the year.

Go a long way toward eliminating seasonal sales and spreading the merchandising of cars evenly throughout the year.

Encourage earlier buying of closed cars.

The "Fall Show Only" Pathfinder



F. L. SHOLES
New York Studebaker Retail Manager

come, when production, as forecast by the tremendous expansion now under way in the automotive industry, will overtake the demand.

Show talk, which has seethed along the length of the metropolitan motor row, was set a-boiling by a newcomer in the trade, F. L. Sholes, retail manager in New York of the Studebaker.

Sholes is a business man of long training, a former official of the American Can Co. He got into the automobile business early in 1919 and says he is willing to spend the next ten years finding out what is the matter with it. He thinks the trouble lies in seasonal sales—periods of heavy demand followed by other periods when selling a carload of cars is an event Mind you, Sholes is not worrying about this

year, but he expects to stay in the automobile business a long time—AND HE IS LOOKING FOR A WAY TO BRIDGE THE DULL PERIODS.

The man who can kill the seasonal sales evil is made, in Sholes opinion, and he is not averse to being in at the death. Hence his inclination to quit bluffing on the winter show and play his hand for a fall display. He does not claim to be sure of winning, but he's willing to take a chance, and thinks it's time to call his brothers in the trade.

Sholes is a dealer without the handicap of habit. His view of the business is from a new angle. He is not concerned about what has always been done. Tradition, which has dictated winter shows since the day of the bicycle, means nothing to him.

Sholes' idea is a fall show AS SOON AS FOLKS GET SETTLED AFTER THEIR SUMMER VACA-TIONS. He would have it perhaps as early as September 20, certainly not much after October 1.

"This would put the new models on display when they are new," he says. "At the winter show they are ancient history, and the buyer is cheated out of four to six months' use of the supposedly new car he buys in January, February or March."

Not only would a fall show start sales of new models when they are fresh from the factories, in Sholes' opinion, but it would give a decided impetus to trade in closed body vehicles at a time when the buying public, if it did not persist in the notion that to buy a car at the end of the year is to have an old type for the twelve months to come, would naturally purchase comfort vehicles for the winter months. He believes an early autumn exhibit would set things going with a momentum that would last until melting ice and clearing roads prompt yearnings for the open that can be satisfied only behind a humming motor.

Let nature be our spring sales booster, is Sholes' summarizing advice.

His principal supporter in New York is William C. Poertner, National and Scripps-Booth dealer. Standing by the winter show is a case of doing what has always been done, in Poertner's opinion. It's a case of whipping a fast horse, instead of applying ginger when the life begins to go out of the year-AND OF CAR SALES, TOO, in ordinary times.

Poertner would have a big show in October, and put the shoulder of the entire trade behind it.

It would put the new models on display when they are fresh, and spread out over the normally dull months a season of buying that would make automobile merchandising in every sense of the word A YEAR-ROUND BUSINESS.

"Every fall and winter," says Poertner, "we have prospects ready to buy who will not sign up and accept deliveries until after the show, because THEY WANT THENEW MODELS."

No amount of talk, he declares, will convince some of these people that the new models are on the floor, ready for delivery at their They persist in doors. waiting, even when the con-

templated purchase is a sedan or coupe, thus losing the benefit of owning a newly designed car during the period when the closed body is the only thing for complete comfort on the road. If prospects of this class could be closed up in the fall, Poertner says, one of the most troublesome problems of his business would be wiped out, and everybody would be wealthier and happier.



CHARLES M. BROWN New York Oakland Branch Manager

Dealer 10 and 24-31, are too early, he says, running the chances of severe weather and following too closely the holiday season. He favors holding the displays about the middle of February, and thinks the result

> Other active members of this year's New York show committee—the dealers' organization rather than the National Automobile Chamber of Commerce

> Both Sholes and Poertner believe that the bringing out of new models should be timed with the show. even to the extent of producing all new types in midwinter if the first-of-the-year show dates are to be retained. But their preference is for the exhibit of cars shortly after the present preponderance of new productions in late summer and early fall.

Another earnest advocate of a fall show, if only one is to be held, is Charles H. Larson, head of the Cutting-Larson Co., Oldsmobile dealer, and chairman of the 1919 New York Show Committee. Larson's preference is for a closed car show in November, or even in October, and a big show in February. But admitting that the problem largely is in the control of the manufacturers, he declares:

"IF THERE IS TO BE ONLY ONE SHOW, BY ALL MEANS LET US HAVE IT IN NOVEMBER, OR DECEMBER AT THE LATEST."

Larson asserts automobile buying no longer is a seasonable proposition, but rates November, December, January and February as the slack delivery months, and believes that a November or December show would help turn these months into live ones.

This would assist the dealer, Larson says, in making sales and deliveries when he is getting in his stock, relieving him of the necessity of making large loans to put into cars for winter display.

On the other side of the fence are an imposing array of metropolitan distributers and dealers. Prominent among them is Charles M. Brown, Oakland branch manager and president of the Automobile Dealers' Association. From September or October or even November, to the spring buying season is a

> long, cold spell, according to his notion, and spring sales would be slow in getting under way and very likely small in volume without the stimulant of a winter show. Something has to be done to rouse people out of the mid-winter lethargy, Brown says, and experience has proven the show's the thing. He puts some stock in tradition, too, declaring that the public has become used to the winter show, enjoys it and, to the profit of the trade, just naturally turns to writing checks for cars.

> IS NOT But Brown WEDDED TO THE MID-WINTER DATE. The coming year's New York and Chicago shows, January 3-

would be phenomenal spring sales.



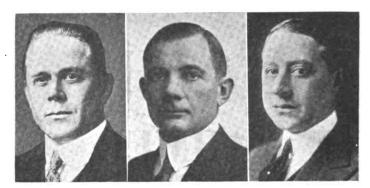
CHARLES H. LARSON New York Oldsmobile

conducted the 1919 exhibit—agree with Brown that elimination of the winter show would be a severe blow to the trade; but most of them favor a date in February or March as conducive to bigger sales and a mightier momentum to spring and summer buying.

In this class are Walter Woods, Peerless dealer; H. R. Bliss, head of the Dodge agency, and Glenn A. Tisdale, Frank-

lin dealer, while Harry J. DeBear, Maxwell-Chalmers winter show. You factory representative, urges a closed body salon in October and a big show in March, a program which he asserts would stabilize the entire year's business.

A. G. Southworth, Buick branch manager, and John in warm weather.



WALTER A. WOODS WM. C. POERTNER HARRY J. DE BEAR

New York representatives of Peerless, National and Scripps
Booth, and Maxwell and Chalmers cars

German of the Cadillac favor retention of the mid-winter show, and believe a date soon after the holidays is advisable.

From the ranks of the showmen comes an opinion, too. Harry T. Gardner, who staged automobile exhibits in Syracuse for eight years and who is now executive secretary of the New York dealers' organization, can see no merit in substitution of a fall for a

winter show. You've got to wake up motor car prospects when they need rousing—after the winter has made them shut-ins—according to Gardner. More than that, he says, the public will not attend a show in warm weather.

Views of the New York Dealers on the Proposal That the Annual Shows Be Held in the Fall

CHARLES M. BROWN, OAKLAND branch manager and president of the New York Automobile Dealers' Association—It would not do. We need a late winter show to crack the ice of winter and energize the trade.

CHARLES H. LARSON, OLDSMO-BILE dealer—The whole industry would be benefited from the selling standpoint by holding a closed car show in November, or even October, and a general show in February. If we are to have only one show, by all means have it in November or in December.

F. L. SHOLES, STUDEBAKER retail manager—An early fall show would put new models on display when they are new, solve the seasonal sales problem, stimulate trade after the mid-summer dull season and spread its results through the fall and winter. Spring, the natural automobile buying season, would take care of itself.

HARRY J. DE BEAR, MAXWELL-CHALMERS branch manager—What we need is a closed body show in the fall and a general show in March. These exhibits would stabilize sales throughout the entire year.

WILLIAM C. POERTNER, NA-TIONAL and SCRIPPS-BOOTH dealer—We don't need a winter show. Spring sales come naturally, and don't require an impetus, while a display of cars in October would work wonders for the closed body industry and help to spread sales generally over the entire year.

H. R. BLISS, DODGE dealer—We don't need a show in these times, but it is worth while from an educational standpoint. It renews public interest in automobiles, and the logical time is late in February or the first of March.

WALTER A. WOODS, PEERLESS dealer—The mid-winter show is traditional in New York and many other cities and to change the date to fall would upset the whole industry—to say nothing of an expectant public. I don't believe a fall show would draw crowds or yield results to exhibitors. The winter show, coming in the height of the indoor season, displays the products of our factories attractively before many thousands of people, impressing upon them the greatness of the automobile industry. A January date is preferable.

GLENN A. TISDALE, FRANKLIN dealer—People are not in the mood after

having their fill of touring in the summer and fall months, to attend a show. The ideal show time is late February or early March, when sales would be much heavier than in January

A. G. SOUTHWORTH, BUICK branch manager-A show is necessary to reawaken interest in automobiles after the "indoor months" of winter. I favor a date soon after the holidays, and I don't believe it makes the slightest difference that many new models are brought out in the late summer and fall. The public pays no attention to these details of the industry, but is interested in a brilliant display of automobiles. Furthermore, models brought out in August and September are not in quantity production until weeks afterward, and the time intervening before the mid-winter show is needed by the dealer to get his stock ready for sales during and after the show. To stage the show simultaneously with the announcement of new models would place the dealer in the ridiculous position of having to offer last year's types to the buying public.

JOHN GERMAN, of the New York CADILLAC branch—The mid-winter show has been tried and found effective. It is the logical date.

SHOWING THE TRUCK TO THE FARMER

WITH DEMONSTRATION IDEAS THE **DEALER CAN USE**

National Sales Managers' Development Tour on Pneumatic Tires Finds Middle West Keenly Interested in Solving Its Transportation Problems-Public Officials and Bankers Ready to Help

ET the motor truck do it! This is the solution offered for the farm transportation problem of the Middle West by the truck development tour of the National Association of Motor Truck Sales Managers, now well on its way over a 3000-mile demonstration trip through six states.

And the farmers, at least in two states already traversed, have given proof of their willingness to be shown.

The tour, in its make-up comprising seventeen pneumatic tired trucks, has accomplished these results in Illinois and Iowa:

Brought distributers and dealers into conference with the tour managers and with each other.

Prompted distributers to ask for local demonstrations in connection with the

Brought together audiences of farmers to hear lectures and see working demonstrations putting forward the practical uses of the motor truck for farm haulage.

Sold the truck-on-the-farm idea to state, county and town officials, Chambers of Commerce and to bankers, who have volunteered to co-operate in promotion and financing of motor truck sales for the good it will do their communities.

Carried to the farmer the possibilities of improvement of his operations by MOTORIZING THE FARM.

Demonstrated to the industry that the farm is the country's greatest potential market for the motor truck.

The Tourists' Welcome

The truck tourists found the farmers intensely interested in their transportation problems. They were so eager to apply any available remedy that they flagged the truck train at points in many cases remote from communities, asking for demonstrations. In crowds ranging from several hundred to 5,000 and more they attended lectures visualizing the motor truck on the farm, and in several cases sought and obtained from the tour managers promises of return engagements in the fall and winter months of the speakers and films taken along the way.

The Lieutenant-Governor of Iowa lent a helping hand to make the demonstration a real go in Cedar Rapids. He served as toastmaster at a banquet at which motorization of the farm was the theme of discussion—and he was one of its principal boosters. All along the route mayors of cities helped the caravan get a hearing, and out in the country towns the public officials were no less appreciative of what the tour and its aftermath meant to them.

Heads of banking houses cordially received the truck demonstrators and offered their resources in the shape of loans to farmers to help translate the haul-by-truck idea into reality.

The trucks stood up well under the grind of travel over good and bad roads, in good and bad weather-much of it bad, with rain coming down in sheets and mud up to the hubs, or higher. Some of the vehicles delivered for business houses on the route goods consigned to farmers farther out. Others carried farm produce into town—a feature which is to be developed as the caravan proceeds.

Make-up of the Caravan

Trucks in the tour, which is journeying through Illinois, Icwa, North and South Dakota, Minnesota and Wisconsin, include:

Atlas. % ton, Parry convertible body. Atterbury, 2 ton, rack side body. Bethlehem, 11/2 ton, wire screen express body. Clydesdale, 11/2 ton, eight in one farm body. Diamond T. 11/2 ton, farm special body. Gramm-Bernstein, 2 ton, five in one body, with hand hoist.

Master, 1½ ton, semi-stake body. Maxwell, 1½ ton, stake body. Republic, 21/2 ton, special farm body. Service, 14 ton, special farm body.

YOU CAN'T

Send seventeen motor trucks on a 3,000-mile tour.

Haul produce for farmers in six states.

Give lectures and band concerts in a hundred communities.

Win the co-operation of public. civic and financial officials for extension of automotive haulage in a territory covering an eighth of the United States.

THINGS WHICH THE DE-VELOPMENT TOUR OF THE NATIONAL ASSOCIATION OF MOTOR TRUCK SALES MANAGERS IS ACCOMPLISH-ING IN THE MIDDLE WEST, but whether you are a distributor or dealer

YOU CAN

Conduct truck demonstrations in your own territory, hauling goods from the city to the farm and produce from the farm to the city, with a single vehicle or a fleet of them, according to the job you want to handle.

Stage "movies" in your own and vicinity towns, showing successful, practical uses of the motor truck, with a local band to furnish the crowd-drawing mu-

Obtain the interest of your county and municipal authorities, your Chamber of Commerce and your banker in promoting the motor truck as a means of developing their constituencies and their businesses. And

YOU CAN

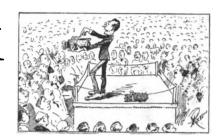
TRANSLATE INTO PROF-ITS THE LATENT POSSIBILI-TIES OF YOUR SECTION OF THE COUNTRY'S GREATEST POTENTIAL TRUCK MARKET — THE AMERICAN FARM.

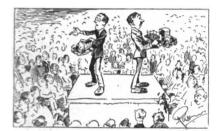
Selden, 11/2 ton, five in one farm body. Signal, 1 ton, six in one farm body, Sterling, 21/2 ton, flare board express. Winther, 11/2 ton, express body. Sterling 21/2-ton truck as Goodyear service. Master 11/2-ton as Firestone service. Diamond T 11/2-ton as Standard Oil service

Leaving Chicago Aug. 4 the run to Elgin was made in fine shape, the motor-(Continued on page 36)

THE MOTOR TRUCK

Not a Side Line Not a Plaything Not an Impossibility, but—





A REAL BUSINESS

For Real Dealers With Real Methods At a Real Profit

By Ray W. Sherman

HEN Reilly took the distribution of the Sayanna truck as a young partner for the Sennett car in the Callawassa country he had visions of a new business that would go hooting through to volume like a fire in the corner of a well oiled garage. To date he had hung onto the vision, but things hadn't hooted as much as he had expected. Most of the hooting had been done by his dealers instead of the business.

The theme of the hooting was that he was a nut for trying to peddle a truck in a territory that didn't have any use for it and that no passenger car dealer with a grain of sense in his head would work his life away trying to establish a truck business when he could just as well make more money with less effort by concentrating on passenger cars.

Wherefore, every time that Reilly and Ben Miller, the Hazeltown dealer, came in contact there was a spirited argument which was always ended by Miller saying: "It can't be done." And to-day the verbal bout was in Miller's office or alleged office, whither Reilly had journeyed on one of his periodical visiting trips.

"Ben," said Reilly, after Miller had sung his song for some time, "of course it can't be done if you try to do it the way you've tried—or haven't tried. I'm tired of all this argument. Either you're going to sell Sayanna trucks, or you're not going to sell them."

"I tell you-"

"You don't tell me anything," Reilly retorted, "at least not anything that you haven't told me many times before. One of the biggest reasons you haven't been able to do anything with this truck is that you've been in the wrong frame of mind. You've sold yourself most completely on how and why it can't be done.

"To start with, you haven't considered the truck as a real business. You have considered yourself a passanger car dealer rather than a business man. You have looked at the truck as a side line that might net a few dollars of profit, but you haven't looked at it in a business way as something that could be built into additional volume.

"The first thing you've got to do is see things in a different light. You've had easy sailing for so many years that I think you're lazy. Now don't get peeved. I mean what I say, but not in an offensive way. I know you're not exactly lazy, but you've acquired a rather lackadaisical way of working. You have been selling a product that hasn't been supremely hard to sell, and so you don't jump at this new product intensively. It isn't the fault of the truck or the market—it's YOU."

"Me? How do you-"

"Yes, YOU—and I'll show you how—and why," Reilly continued.

"After you got the agency you did the usual thing and put a demonstrator on the salesroom floor. You made a few calls and waited for folks to come in and buy the thing. A lot of them didn't come because a lot of them are not yet sold on trucks generally, let alone the Sayanna truck. When the rush of customers didn't come you began to wail about the rotten truck business and said there was something wrong with the truck.

"Then I showed you scores of trucks running in Callawassa and other territories which shot your argument about the truck being no good. Then you said it was the fault of the market-folks didn't need trucks here and wouldn't buy them. Then I came down here and sold two trucks for you and meantime one of your competitors scattered a few trucks around your territory and then you set up a wail about how much truck service was costing you. You said I had done you an injury in selling two trucks for you. I offered to get you a good mechanic who could do all kinds of work and who also knew the Sayanna truck, but you wouldn't stand for thatand there you are.

"Now—take a look at Bulger, over in Whippletown. He's making money selling Sayanna trucks. He left his car sales to his passenger car men and devoted his own time largely to the truck until he could see just what was needed to develop the business. Then he went down to the railroad station and hired the freight agent as a salesman. He trained this man to sell, coached him along in fine style and got him so he could sell.

"Then Bulger went over the field and lined up a good prospect list. He divided it into businesses and got the factory to circularize the lists for him. Then he followed it up himself and did some local newspaper advertising. Meantime he kept that freight agent lad rustling around like a dog after a rabbit.

"He found that one of the first things buyers were interested in was service. And he didn't have any mistaken ideas about having to give it all away. He had his passenger car repairshop, but the men didn't know much about the Sayanna truck, so he got a man from the factory and put him in charge of truck service. He ran the whole thing in the one shop. When the truck man needed help he drew from the regular force.

"Every time Bulger saw a chance to put in a lick at the truck business he did it. He plugged hard getting startedbe HE GOT STARTED. He didn't sit down and bewail the troubles of the business; he went at them and licked 'em. The real business man, Ben, licks problems—he doesn't wail about them. Business is just one great contest. Every business man is in a game to win, and the joy of winning consists in overcoming the hard spots and being a winner. If you haven't got the fighting spirit. the desire to win, the will to overcome obstacles and the joy of the contest you never will be a good truck dealer—or a good passenger car dealer either."

Miller gasped a bit and wondered what the last remark meant.



What

THE STATE FAIR

Did for Trucks and Tractors in Missouri—Is Missouri's Experience Worth Something to You?

By BEN S. BROWN

C EDALIA, MO., Aug. 25 - The day of the "hoss"—and of the mule, too, for this is a Missouri story—is past in this state. Tractors and trucks are coming into their own. Sales in both fields have been decidedly on the gain throughout the spring and summer, and a further boost is looked for as a result of the tractor and truck demonstrations staged before several thousand farmers at the state fair here this month.

Tractor distributers held a demonstration which sold tractors in large numbers, but which fell short of its possible accomplishment for the industry through failure of the exhibitors to understand thoroughly and manipulate skillfully the agricultural implements drawn by their machines.

The truck idea was brought home to the farmers through the meeting here of two ship-by truck expeditions, one from St. Louis and the other from Kansas City.

Two caravans, aggregating forty-five trucks, toured the farming counties lying between their starting points and the fair grounds, in the center of the commonwealth, combining in a demonstration which Jewell Mayes, secretary of the State Board of Agriculture, termed "highly significant in indicating the future relations of agriculture and marketing." Though the tour was arranged for publicity purposes, without arrangements for sales promotion, truck exhibitors at the fair found that it stimulated the interests of prospects, many of whom were impressed by the haulage possibilities of trucks as demon-

READ THIS FIRST

THE state fair season is here again, and with it the possibility of resultsgetting propaganda on the part of dealers in automotive products—particularly trucks and tractors.

Does this mean anything to you?

Have you tried the fair exhibit or demonstration and found it wanting in results? Or is the experience a closed book to you?

Or are you a regular space rentor, year after year, at state agricultural meetings?

Whichever class you are in, the experiences of tractor demonstrators and motor truck tourists at the Missouri State Fair will be of interest.

Read what happened at Sedalia!

strated by the performances of the heavily laden vehicles over more than 100 miles of country roads.

The demonstrations, both of trucks and tractors, were staged before crowds rich in prospects. Inevitably they suggest the possibility of action along similar lines in other states. It is a foregone conclusion that where 5,000 to 59,000 farmers get together for a holiday there are opportunities to sell farm vehicles and machinery and to arouse interest leading to future sales. THE EX-PERIENCE AT SEDALIA OUGHT TO CARRY VAL-UABLE SUGGESTIONS FOR DEALERS IN ANY FARMING SECTION.

Twenty makes of tractors were entered in the demonstration, which included plowing, disking and seeding of 200 acres.

The farmers' attitude generally was disconcerting to the exhibitors. They expected their machines to be centers of interest. Instead the farmers directed their attention to the land, studying the results of the plowing and other operations. What many of them said was not complimentary to the performances of the demonstrators. "Do you call that plowing?" was a common comment, yet sales were made on the field, and inquiries by prospects were numerous and showed the keenest interest. And state farming officials predicted a big stride in motorization of Missouri's farms as a result of promotion efforts this year. among them the Sedalia demonstration.

The farmers' criticism set the distributers thinking seriously about the future of their enterprises, in spite



of a steady gain of sales since May 1, attributed in part to heavy losses in horses and mules during the extremely hot weather that accompanied the heavy plowing spells, and to concentration by dealers on tractor selling because of the loss of business through scarcity of passenger cars.

The vociterous "kicks" of some farmers, the meas-

ured, thoughtful comments of others, were, as some dealers gleefully declared, a healthy and gratifying sign of interest. They were far more acceptable than the silent contempt with which the tractor was greeted a year ago. Not long ago, the farmer wouldn't recognize the tractor as having any function whatever—it was outcast and alien. Now it is a member of his family, and he feels free to scold it heartily.

There seems no doubt that distributers and dealers will have to pay more attention to the implement end of the business. Mere motor car selling methods will not sell tractors. The salesman must

know implements, and unquestionably the demonstrator of a tractor must know how to get the best results from the implements he domonstrates with. Poor plowing is a positive detriment, no matter how much ground the tractor covers.

The distributers see that the state fair is their best bet for smashing big work for tractors. They have begun to feel that the responsibility for the larger phases of tractor promotion are up to them. They went into the demonstration under the impetus of conventional tractor demonstration practice—and the plunge woke them up. They see so many broader and better things that might be done that the accomplishments of this fair seem trivial.

"I believe we ought to plow two full days at the state fair," said G. T. O'Maley, Fordson distributer, and he echoed the sentiment of many of his colleagues.

Unfortunately, no Missouri College of Agriculture representatives participated in the demonstration. None made themselves known on the grounds. Some dealers regretted that the state university did not co-operate, others believed it should initiate the development of tractor data for the farmers in connection with demonstrations of this kind.

Many farmers, on the other hand, expressed the desire for some agency to appear that would help them study tractor operations, but were not enthusiastic over the idea of the state university undertaking the duty.

Secretary Mays of the Board of Agriculture regarded the demonstration as of great value to the farmers, many hundreds of whom, he said, "were aided in deciding the type to buy—and they will buy and are buying."



MISSOURI SURRENDERS TO THE TRACTOR

Acting Governor Crossley waving the white flag to start the

Sedalia demonstration

The ship-by-truck expeditions which converged here were arranged by the truck departments of the motor car dealers' associations of St. Louis and Kansas City. In St. Louis, the dealers' association and the Chamber of Commerce co-operated, largely through Robert E. Lee, secretary of the former and assistant secretary of the latter, who was general manager of the St. Louis expedition. The ship-by-truck slogan and emblem of the Firestone Tire Co. was used, and Firestone men assisted. but Goodrich and Goodyear representatives also co-operated, sending trucks in the caravan. In Kansas City, the truck dealers were or-

ganized for the expedition by R. J. Fredman, manager of the ship-by-truck and return loads bureau, and R. T. Smith, manager of the truck tire department of Firestone there.

The Kansas City caravan included twenty trucks, all new vehicles taken off the sales floors, only one of each make. Four were equipped with Giant pneumatics, the others were just as displayed for city trade, with solids. All but one of the trucks were loaded—a Maxwell chassis going along for delivery to a dealer on the way to Sedalia.

All were 2-ton trucks, carrying 5,000 lb. loads. Eighteen had flour, a total of 400 barrels to be delivered at Sedalia.

One truck had 5000 pounds of coal. Deducting time for a parade in Kansas City Wednesday noon, the delivery of the flour and coal was less than 12 hr., whereas freight time is usually about a week. Freight rates were charged for the delivery. The distance covered was 112 miles, leaving Kansas City at 7:30 a. m., Thursday, making stops of 20 min. to an hour in fourteen good towns, reaching Sedalia at 7 p. m. The route was over good dirt roads, with three miles of oiled roads on spots of which trucks skidded badly. A tire service car with high-pressure pump went along, but its services were not needed. Only one truck fell out, a standard part breaking. (Continued on page 36)





The Missouri farmers were interested in the tractors' work rather than their operation. Little attention was paid to the plowing itself, but the crowds spread over the fields to inspect the plowed land

A Department of

BETTER MECHANICS

No. 114

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the tenth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

SIDE from the magneto, which was fully covered in a previous chapter, we have to deal with the coils, vibrators, plugs, timer or commutator. wiring or switch.

The coil box containing the four coil units is fastened to the rear of the dash and is not subject to trouble ordinarily unless in case of accident or grounding of some part of the connections. When the units are slipped into place, the proper contacts are automatically made with the wiring by means of the spring contacts. If there is not a good electrical contact, the springs either do not press sufficiently hard against the contacts or the metal has become corroded and should be scraped clean.

What Has Been Covered

I-The power plant

- Removing the engine from the car.

 Taking down the engine.

 Testing and straightening the crankshaft.

- crankshaft.
 Rebabbitting the cylinder block
 Reboring the cylinders.
 Fitting new pistons.
 Fitting the piston pin.
 Aligning the connecting rod.
 Fitting the rings to the pistons.
 Burning-in the bearings.
 Testing and overhauling the magneto.

- -Testing and overnauling the mag-neto.
 -Overhauling the transmission.
 -Minor engine repairs.
 -The carbureter.
 -Assembly of engine and trans-mission.

This Week

The Ignition System

The spring contacts in the coil box connect with the porcelain insulators which extend through the dash over the engine. Sometimes these get broken, in which case the current from the high tension leads of the units is liable to escape to the dash or some other point and so put that lead out of commission.

Sitting in the driver's seat and looking toward the front of the car, the coil unit to the left is numbered 4 and is connected with No. 4 spark plug from the bottom terminal and No. 4 contact on the timer from the upper terminal. From No. 4 unit at the left the figures run, reading toward the right, 3, 2 and 1, each of which connect with a similarly numbered spark plug and contact on the timer, the bottom or high tension wires going to the plugs and the upper or low tension going to the contacts on the timer through the 5-way assembly.

The entire electrical system on the Ford, including ignition, lights and horn, has a grounded return, or in other words is a one-wire system. The single pole from which the current is taken is the magneto terminal on top of the transmission cover. A cable or wire leads

from this to the lower left terminal on the coil box (still looking from the driver's seat). To this are also connected the wires leading to the horn button and the lighting switch. In the case of the models fitted with the Ford starting and lighting system, this wiring is changed somewhat so that the lights operate from the storage battery and not from the magneto. Complete instructions and wiring diagrams for this system were published in Motor World issues of Apri. 30 and May 21, 1919.

If you are working on a model fitted with the starting and lighting system, go back and get out your issues of these dates and read them over carefully.

In wiring from the coils to the timer

Next Week

Testing and Running-in the Engine

Future Installments

The radiator Rear assembly Front assembly Chassis frame and dash Body, top and windshield The steering gear

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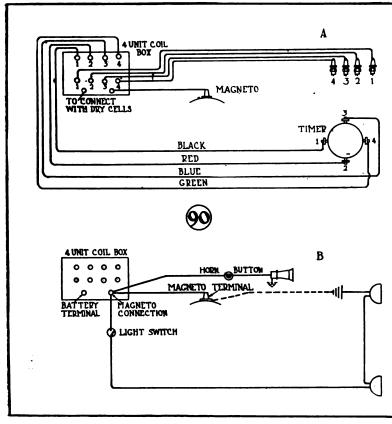


Fig. 90-Wiring diagrams of the Ford. A shows the ignition and B shows the lighting and horn circuits. Note that this diagram does not apply to cars equipped with the Ford electric starting and lighting system

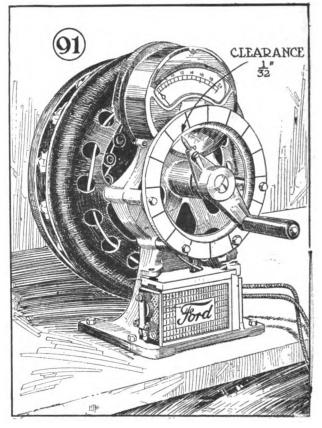


Fig. 91-This coil-unit testing machine is used for testing the units and adjusting the vibrators to the best possible position

observe the following method connecting the colored wires in the loom:

No. 1-Black.

No. 2-Red.

No. 3-Blue. No. 4-Green.

The black wire connects to the No. 1 coil terminal and the No. 1 timer contact, the red to the No. 2 in each case and so on for the others.

In overhauling the wiring, observe the following points:

1—Examine the wiring and if it is oil soaked, frayed or otherwise in damaged condition, replace it with new wiring. This is furnished cut the correct length, in loom where necessary and all furnished with the necessary terminal connections.

2-See that connections are clean and tight, scraping the metal if necessary to secure a good metallic contact.

3-Look out for broken wires, worn insulation, mixed wires at the terminals, wires so attached that the timer wires touch the gear cover, loose strand touching the gear cover or commutator case.

4-Consult the wiring diagrams in Fig. 90.

The Coil Units

When any considerable quantity of Ford coil units have to be tested and adjusted, the use of a coil-unit testing machine shown in Fig. 91 is strongly advised. This consists essentially of a Ford flywheel with its assembly of magnets, the whole being revolved by means of a crank handle. The coil assembly is

held stationary as in the case of the Ford engine and the magnets passing before the coils produce exactly the same current as in the engine. The current is conducted through wires to contacts which connect by springs to the coil unit when one is inserted in the receptacle provided for it. The high tension current is then conducted on one side to the ring surrounding the crank and on the other side to the pointer which is opposite to the crank and which revolves with the crank.

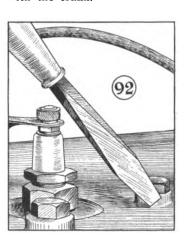


Fig. 92-Spark plugs are tested with a screwdriver by shorting them to the cylinder block one at a time

Presuming that a unit is in place,

1-Turn the handle around at a moderate rate of speed.

2-Adjust the vibrator screw in or out, as the case may be, till the vibrator buzzes.

3-The most perfect adjustment is obtained when the spark is seen in the form of a circle passing between the pointer and the ring.

4-If the spark only appears at a few points on the circle, the adjustment is not correct and should be changed The

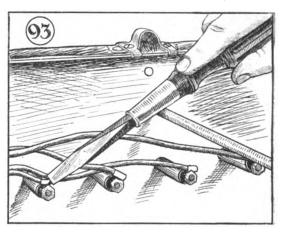


Fig. 93—The terminals of the coil units can be conveniently shorted to the radiator stay rod with a screwdriver



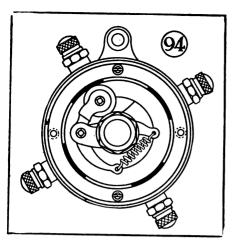


Fig. 94—The Ford timer, with the shell removed to show the parts

more nearly the sparks assume the shape of a circle around the ring, the more sparks there are passing at the points of the plug when the unit is in place on the car and the more perfect the ignition. A smaller number of sparks reduces the possible chances of firing the mixture.

5—If it is impossible to adjust the unit so that it causes this circle of sparks, there is something the matter with the unit.

'6—The points of the vibrator may be burned or not trued off correctly so that it is impossible to secure a satisfactory contact. In such case, the points should be either dressed off, or if they are badly burned, should be replaced with new ones.

7—If it is impossible to secure any spark or any buzzing at all, there is either a broken connection in the coil or the condenser is punctured.

8—A punctured condenser may short circuit the primary so that the coil will not operate at all, or it may be punctured in such a way that the leaves do not short circuit each other, but simply allow excessive sparking at the contact points.

9—The best remedy for a damaged unit is to replace it with a new one.

10—The voltmeter on the machine is used to check up the voltage given out by the magneto. At normal speeds it should give about 18 volts. It should be possible to produce a spark at the points when the machine is running so slowly that only 6 volts are being produced.

11—Another cause of trouble is moisture in the coil units. This may possibly be remedied by a slow drying out. It should not be remedied by putting the unit in a very hot place, such as an oven, as this will only melt the insulating compound in the unit and more trouble will result.

Spark Plugs

The best and quickest way to conduct repairs on spark plugs is to put new ones in where there is any doubt about their performance. The small expense involved will be repaid in the better running of the engine, and any faults that develop in the test can be better and easier located if the repairman is sure that the plugs are all right.

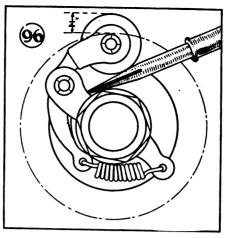


Fig. 96—The roller arm can be pried out with a screwdriver

1—In case of doubt about a plug, the trouble will either be a short circuit from carbon on the lower part of the insulator, a short circuit from a broken or cracked porcelain or incorrect gapping of the electrodes.

2—If the plug is otherwise perfect, the carbon can be cleaned off the porcelain by unscrewing the compression nut and wiping the carbon off with a rag soaked in gasoline. If the carbon does not respond to this treatment, it may be

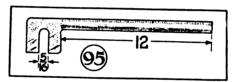


Fig. 95—A bending bar for bending the timer pull rod

scraped off, but care must be used not to scrape the glazed surface off the porcelain, as this will allow the carbon to accumulate much more rapidly at this point.

3—In reassembling the plug, be sure that there is no dirt or grit and set the nut up tight so that the porcelain makes a tight fit against the gaskets. Leakage at this point can be tested when the plug is in the engine by pouring a few drops of oil around it. When the engine is running, bubbles will appear if there is a leak.

4—A broken porcelain is usually evidenced by the upper part of the porcelain being loose. It usually breaks just at the lower part of the stem.

5—A cracked porcelain can sometimes be identified by looking at the plug in a dark place when the current is passing through. A leak will show up by the spark jumping through it at this point.

6—The electrodes should be clean and should be gapped about 1/32 in. This is about the thickness of a worn dime. If the construction of the plug admits, the electrodes should be bent so that the oil will run away from the gap by gravity and not down to the gap.

7—The size of the plug is ½-in. pipe thread which has a taper of ¾ in. to the foot, so that when the plug is screwed in it forms a tight joint without the

necessity of a gasket. The length of the plug should be such that the electrodes just extend down into the combustion chamber. If a plug has been designed so that the hexagonal part of the shell extends pretty well up, this will facilitate easy removal and replacement.

8—While plugs can be tested with a 6-volt current from a battery, the most accurate tests are secured by using the testing machine which produces just exactly the same current as the magneto in the Ford engine.

9—Methods of testing the plugs and coil terminals by shorting them one at a time are shown in Figs. 92 and 93.

The Timer

The timer is probably the cause of as much trouble as all the rest of the ignition apparatus put together, and the trouble is mainly due to improper care on the part of the owner. The timer should be lubricated regularly and frequently with very light oil and if it is neglected, there is an accumulation of gummy oil that covers the contacts and it is difficult if not impossible to get the current to pass across this gap. Regular oiling is the only way to keep the timer working correctly.

The correct lubrication of the timer determines very directly the wear on the parts and consequently the life of the timer. When not lubricated, parts of the shell wear and other parts wear more slowly so that the shell does not present a true circle. The result is that when the engine gets to running at any fair rate of speed, the roller jumps over some of the contacts, and the units connected to these missed contacts fail to buzz, consequently that cylinder misses. This is a particularly frequent trouble.

1—The quickest and best remedy for this is to replace the timer shell with a new one and also replace the roller and arm if there is any wear apparent. It

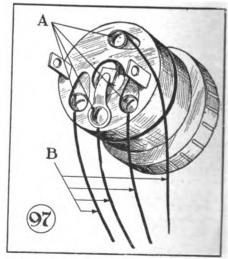


Fig. 97—The switch may cause trouble. A shows possible loose or poorly made connections shorting into switch housing. B shows possible wires grounding at point of entering switch housing or conduit on steering column



is difficult and expensive to turn the timer shells out and the tool usually jumps into the soft fiber so that it is practically impossible to turn the timer shell out to a true circle. Grinding will produce a true circle, but usually the expense of setting up the parts is out of all proportion to the ends attained.

2—The roller should press against the shell with sufficient force to make a good electrical contact with the metal segments. Sometimes the arm becomes bent and in such a case it should be bent back to its correct position. When the timer shell is taken off, the roller should extend to a point about 1/4 in. further out than the inside circle of the shell. A screwdriver placed under the roller as shown in Fig. 96 will bend the arm out to this position.

3-The commutator pull rod not only advances and retards the spark, but is also the adjustment as to the timing of the spark as related to the spark lever on the steering wheel. The shorter the rod, the earlier the spark, and vice versa. If the rod is bent, therefore, it will be shortened. A tool to make the quick and easy bending of this rod possible is shown in Fig. 95.

4—The ordinary troubles that may be looked for in the switch are shown in Fig. 97.

Book Review

Vitiation of Garage Air by Automobile Exhaust Gases. By G. A. Burrell and A. W. Gauger. Department of the Interior, Bureau of Mines, Government Printing Office, Washington, D. C.

This is a pamphlet dealing with the danger of exhaust gases from automobiles and trucks in garages. As a number of fatalities have recently happened from this cause, the pamphlet is well worth the perusal of all those having to do with automobiles. Exposure to an atmosphere containing 0.2 per cent will cause a man at rest to collapse within an hour and a man at work will be overcome much more rapidly than a man at rest. Complete instructions are given for resuscitation after being overcome by exhaust fumes. The first step is to throw doors wide open and remove the overcome person to fresh air. The poisonous gas that is formed by combustion of gasoline is carbon monoxide and the largest percentages of this gas are formed when the car is running without load.

Telephone Co. Brings Patent Suit

CHICAGO, Aug. 22-Suit for the infringement of its Wilcox & Cavanagh patent No. 1204104 has been brought by the Connecticut Telephone & Electric Co. in the United States District Court here against Joseph Weidenhoff. This is the second case brought because of the manufacture of spurious parts for its ignition system. The first one, against Paul G. Nichoff last December, was settled amicably when the company agreed to discontinue the practice.

Causes of Trouble in the Ignition System

WIRING

TIMER

COILS

SWITCH

LIGHTS

HORN

Wires connected to the wrong terminals. Worn or frayed insulation. Dirty or loose connections. Broken wires.

Wet wires.

Improper and infrequent lubrication.

Worn fibre ring causing roller to jump and

Roller rivet too tight, preventing roller from

Roller not pressing against contacts.

Weak or broken spring.

Improperly adjusted timer pull rod—loose

ball joint.

Shorts between wire and timer case or timing gear case.

Case spring weak or not drawn down properly.

Case not set properly in the recess.

Case dirty or worn.

No fibre washer at base of terminal post.

Roller brush set wrongly.

Weak or dead—trouble with magnets or coils-see chapter on magneto overhaul. **MAGNETO** Defective terminal—loose connection, dirt

between contact on coil support and spring; weak or broken spring.

Weak, broken or dirty spring contacts in box.

Broken porcelain terminals.

Defective coil unit-broken wire inside or punctured condenser.

Improper adjustment of vibrator screw. Pitted, dirty or burned-out points.

Moisture in coil box or units

Foreign metal in box causing shorts.

Cracked porcelains.

Leaky joint or damaged gasket.

Improper spark gap. SPARK PLUGS

Loose connection.

Loose center electrode.

Carbon on porcelain or electrode.

Loose connections.

Short circuits.

Switch wires grounded at point of entering switch housing or conduit on steering column.

Poor contacts.

Broken wires.

Poor connections.

Defective sockets or elbows.

Burned out lamps.

Poor contacts at switch.

Ground in horn.

Improper adjustment.

Broken wires.

Poor contacts in switch or horn.

Editorial Observation

Business in Government

In the good old days "befoh the wah" the well-known American citizen lived a rather enjoyable life. The fact that his citizenship was founded in government meant little in his young life, and he lived merrily on, year after year, totally oblivious of the fact that he was part of the greatest and most successful government in the world. Once in a while he would go to a political meeting and get "all het up" over the religious inclinations of some candidate or the stand taken seven or eight years before by some office-seeker on the highly important subject of whether the "old stone road" should be 16 or 161/4 feet wide. And then he would go back to his "citizening" again until the next periodical performance of the politicians.

Between times he would damn the whole system of government because his taxes were stolen by officials, because money was taken by grafters, because the school system was rotten, because the streets weren't kept in repair or because the cop on his beat had flat feet and made too much noise when hurrying home from his night's vigil.

So much interest did this citizen and business man take in government that he left this very minor affair to anybody who wanted to fuss with it. If some saloonkeeper—of which there may be no more—wanted to run for alderman, Mr. Business Man let him have the office.

The result is that to-day we have in control of our governments, local, State and Federal, about the finest collection of "business men" ever assembled in one "business organization"—and it is the GREAT-EST BUSINESS ORGANIZATION IN THE WORLD—or OUGHT to be.

Just for example, the occupations in the Ohio State Senate and House are given in the next column.

How did they get there? If YOU live in the State of Ohio, YOU probably helped put them there. And if you don't happen to live in the State of Ohio don't feel superior. Just check up the occupations of the men in YOUR state, county, city or Congressional district and see how well you have arranged for the representation of your own affairs.

All during the war business had trouble with officialdom. Regulations were made—and are still being made—which are contrary to all the common sense of business operation. We wail and kick and protest—and next election time send the same delegation of farmers, motormen, bankers, teachers, lawyers and what-nots to our capitals to handle our affairs.

WHEN WILL BUSINESS WAKE UP?

Instead of letting Congress diddle along in the old way, when will business make it plain that it demands that our government business be handled on a BUDGET and not on a systemless, foolish, political plan?

When will business men accept the responsibilities of office and see that business is represented in government and that government is run as a business?

When will the automobile men wake up to the fact that sane automobile legislation can be made only by men who KNOW the automobile business?

It is high time business waked up to the situation. We have let our government be run too long by incompetents whose occupation is perpetuating themselves in office and their parties in power.

From this time forward let every man in the automotive business stand firmly, sincerely and intelligently for BUSINESS IN GOVERNMENT.

Occupations of Ohio Law Makers HOUSE OF REPRESENTATIVES

HOUSE OF REP	RESENTATIVES
Lawyer and farmer 2	Blacksmith
Farmer and livestock	College president
dealer 1	Farmer and teacher
Lawyer 30	Motorman
Teacher 5	Receiver of traction com-
Farmer 23	pany 1
Civil engineer 1	Merchant
Auctioneer 2	Minister 2
Editor 1	Molder 1
Real estate 4	Hotel proprietor
Manufacturer 2	Conductor
Veterinarian 1	Foreman
Physician 3	Musician
Salesman 3	Savings and loan 1
Insurance 6	Electrician 1
Clerk 2	Retired 2
Steward 1	Banker and teacher 1
Farmer and contractor 1	Grape grower
Contractor 3	Merchant and farmer
Dentist 1	Oil producer 1
Merchant and manufac-	Wool buyer 1
turor 1	

SENATE

·	2 E74	AID	
Lawyer	7	Editor	1
Grain dealer	1	Merchant and farmer	1
Retired	8	Carpenter and teacher	1
Conductor	1	Bank cashier	1
Machinist	1	Real estate	1
Farmer-miller	1	Insurance	2
Army officer	1	Merchant	2
Manufacturer	2	Secretary	1
Publisher	1	Farmer and manufacturer	1
Teacher	1	Farmer	1
Publisher and real estate		Railroad engineer	1



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's 'legal editor to discuss the question?

Defines Partner Liability

The New York Court of Appeals recently decided that when a man enters into a partnership he is not responsible for the purchases of his partner unless the goods are actually used in the business or unless the articles are of the kind usually and customarily bought for such a business.

The Iroquois Rubber Company, N. Y., in 1913 bought automotive supplies consisting of gas burners, tank washers, magneto cable, engine paint, etc., amounting to \$513.67 on which has been paid \$148.06, leaving a balance due of \$365.61. A. Ray Griffin, one of the defendants, was in the garage business under the name of the Oakland Garage of Albion. Stray Mathes was not in the garage business or connected with the Oakland Garage. He and Griffin constituted the firm of Mathes & Griffin, agents of the Oakland automobile to sell Oakland automobiles. They also sold second-hand cars.

The Iroquois Rubber Company brought this action against the firm to recover for the automobile supplies furnished, and, the defendant Mathes, while admitting that he and Griffin were copartners for the sale of automobiles, denied that they were partners for any other purpose or that the supplies were furnished to the partnership. The denial also raised the issue as to whether the special partnership or business was of a character to impliedly authorize Mathes to purchase automobile supplies.

The Iroquois Rubber Company had recovered in the lower courts and the appeal was brought by the defendant Mathes.

The testimony showed that a purchase of \$139.22 was made by Griffin in March of 1913 at the Iroquois Rubber Company's store and that the balance of the bill, \$227.79, was purchased in the following May by a written order on the letter head of the defendants. Witnesses for the plaintiff said that Mathes was with Griffin in the store at the time of the March purchase and was introduced as Griffin's partner. This was denied by Mathes.

The court held that, as evidence was lacking that the partnership repaired cars, had a place of business, or used automobile accessories, it could not be assumed that they did so where it appeared that one partner conducted a garage individually and the other part-

ner never ordered or received the goods. Iroquois Rubber Co. v. Griffin (123 N. E.).

Agent's Right of Resale in Texas

In a recent Texas case a motor manufacturer located in another state, but doing business in Texas through agents, was enjoined from limiting or restricting the agent's right of resale.

An application for an injunction was made by the State of Texas against the automobile manufacturer. It was claimed in the application, "That under the manufacturer's system of business in the State of Texas it sells its automobiles and automobile accessories and sunplies to dealers and distributers for resale and said dealers and distributers are given by the defendant by virtue of a contract made and entered into between the defendant and dealers and distributers a certain fixed territory in which to resell said automobiles and automobile accessories and supplies; the defendant agreeing with its said dealers and distributers not to sell to any other person in said territory and said dealers and distributers agreeing with the defendant not to sell any other automobiles and automobile accessories and supplies in said territory other than those purchased from the defendant, and further agreeing not to sell the automobiles and automobile accessories and supplies purchased from the defendant to any person or persons outside of said designated territory."

The court held that this was a violation of the revised statutes of 1911, Article 7796, of Texas and therefore enjoined the dealer among other things from:

"Hereafter forming, making or entering into any combination or agreement with any other person, firms, corporations or associations with persons where the right of such persons, firms, corporations or association of persons to sell automobiles or automobile accessories and supplies in the State of Texas shall be in any manner limited or restricted."

The court said:

"If appellee wishes to avoid being charged with the violation of our antitrust laws it can accomplish it very easily. It need only do as other sellers do, permit its purchasers who pay for what they buy to resell to anyone anywhere at any price." State vs. Willys-Overland, 211 S. W. 609, Texas.

Ask High Liability for Owners

Among the bills submitted to the various legislatures at the sessions just ended was a California measure novel enough to attract attention. It provided that satisfactory evidence should be submitted to the State Motor Vehicle Department that the applicant had liability insurance amounting to at least \$5,000 before a license should be issued to him.

The representative who introduced this bill stated that legislation of this kind was necessary because of the fact that used cars are so cheap in California, As a result of the fact that cars are cheap and are sold on easy terms, oftentimes accidents are caused by drivers who have no financial standing. The result is that when the injured party attempts to collect for the injuries sustained he finds out that there is nothing to levy on even if judgment is recovered. as in one particular case where a brand new car was totally destroyed by being run into by an old one which had been bought for \$130 and on which only \$25 had been paid in at the time of the accident.

New York Has Law to Cut Down Theft

In an effort to restrict the market for stolen cars in New York State, the New York motor vehicle law amended at the last session of the legislature. Chapter 379 of the laws of 1919 now require the seller of a car to endorse upon the certificate of registra-tion the name and address of the purchaser, the date of the delivery of the car sold and, in addition, to sign his own name upon the certificate. The purchaser is allowed to operate the car with this certificate for ten days. No person can lawfully transfer a car, under this new law, without delivering to the purchaser the certificate of registration properly endorsed. A violation of this act is punishable by a fine of \$100, r 60 days' imprisonment, or both. The act is designed to prevent the theft of cars and safeguards the legal transfer of ownership. This provision of the law becomes effective Feb. 1, 1920.

Oklahoma Wants Good Roads

KILDARE, OKLA., Aug. 21—The Kay County Good Roads Association has started a boom for \$1,998.000 worth of improved highways, covering 135 miles.

SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

REPAIRSHOPS

Plan No. 1

Garage With Battery Service

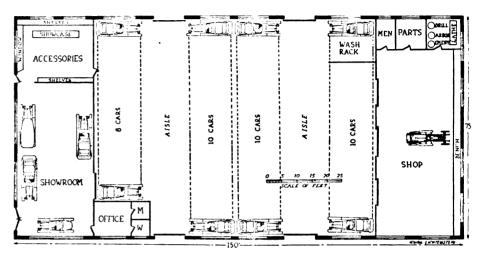
Character of Business—Car sales, farm implements, battery service, storage service.

Details Wanted—Attractive showroom, shop on the first floor in the rear, the battery service department to be located in this part. Second floor for storage only.

Name—Sapp Bros. & Co., Mount Vernon. Ohio.

Answer—Herewith is a plan exactly to your specifications and therefore one which requires no explanation except perhaps to say that the method of car storage selected is the only rational one for a building of this width.

The car storage department has been arranged in such a way that one row of cars is in front of the other. This may seem to be unhandy, but it really works out very well in practice because the cars which come in last and go out first in the morning are placed in the front row and the cars which come in first and go out last are placed in the back row. Cars which are irregular may

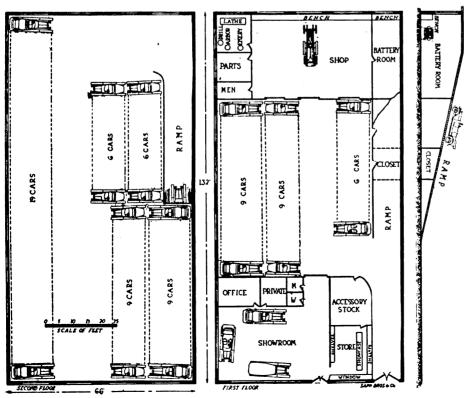


Plan No. 2—One-story garage building, 150 x 75 ft., for Irving Litchenstein

be placed in a ringle row by themselves. It is very easy for the night man to tell which cars should be placed in the different rows.

NO TIRE GUARANTEES

Read page 8



Plan No. 1—Two-story building, with salesroom, shop and battery service department, designed for Sapp Bros.

Plan No. 2 An All Round Garage

Character of Business—Storage, sales of equipment and supplies, cars, service and storage.

Details Wanted—Building on a lot at corner of two much traveled highways, church and picnic grounds nearby, sheds for cars while people attend church or picnics, showroom, stockroom, service department, room for storage of cars, etc.

Name—Irving Lichtenstein, Roseland, Va.

Answer-The plan we have drawn up for you embodies all your requirements as we see them. The showroom, of course, is placed out on the main highway. You have said nothing about selling cars, but we would strongly advise your taking on a line of passenger cars, and perhaps two different lines which do not compete with each other in price. If you are in the heart of a farming country there ought to be a market for trucks among the farmers and if the farms are of sufficient size, you should also look into the possibilities of the tractor. The combined line of passenger cars, trucks, tractors, automotive equipment, tires, gasoline, oil, service and storage should prove very profitable to you if you handle it right. To do this you will have to departmentize your business and be a real executive so that you can watch the growth of the different departments. You must know what your costs are so that you can tell whether you are making money on all the lines and if you are not, why.



If your partner is a good mechanic, let him take care of all the service and you devote your efforts to building up a big sales record, but don't let the service drag down the profits on the sales or the sales drag down the profits on the service. Knowing your business in an intimate way is the only way to succeed. To know all the facts you will have to study your books, your records and your sales reports. Remember that it is only the productive time that counts and all the time that you are riding around digging up sales prospects is really lost time and the only productive time that you spend is when you stand in front of your prospect and tell him why he should buy. Cut down waste time, unnecessary running around, and arrange things so that work can be accomplished with the least

Plan No. 3

possible expense of time and money.

A Ford Sales and Service Building

Character of Business—Ford sales and service.

Details Wanted—Lot 50 x 200 ft. with back and front entrances, but building to be only 50 x 100 ft. at first. Sales and stock rooms, main office, private office, no storage except for company cars, supply store, balance of building to be given over to service.

Name—Smith Bros. Garage, Herkimer, N. Y.

Answer-We have placed the show-room up in front where it should be and

When Should

SHOWS BE HELD

Read page 12

of necessity have put the drive alongside of it, although this cuts down the width of the showroom more than we would have liked. However, as the main business of the garage will be service, the entrance should be from the front and there should be no necessity for the customer to drive around the block to get in the rear entrance. We have shown space for the storage of nine cars, and of course this would include some cars which are in the shop for repairs of various kinds. The parts and accessory room has been placed so that it is convenient to both the showroom and the shop so that the owners can buy their parts directly from the showroom and at the same time the mechanics can get parts without coming in contact with the customers.

The service department has been made large enough for your purposes, we think, and as the business grows, the shop can be added to at the back end, at the same time making the showroom deeper if required. You should install modern Ford repair equipment and seek to effect repairs in the least possible time and in the best possible manner. Read the series of articles now running in Motor World on "Modern Methods in Ford Repairs."

You will notice that a wide door has been provided between the showroom and the shop. This is for the purpose of getting the cars in and out of the show-

Plan No. 4 A Garage With an Apartment Over It

Character of Business—Car and automotive equipment sales, service, vulcanizing, storage.

Details Wanted—First floor for general garage purposes, with sales and showroom in front part, show window for car, show window for equipment, entrance for storage to be from rear. Second floor to be an apartment with front stairway. Size of lot, 30 x 92½ ft.

Name—Davis Garage, Keyser, W. Va.

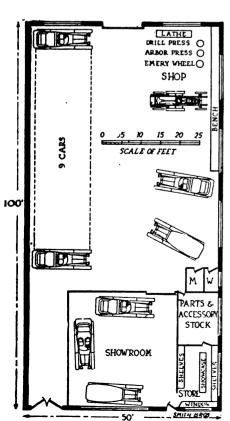
Answer—Although we have studied your letter of June 12 very carefully we are not quite sure we understand what you want. We have, however, drawn a plan which we hope will meet with your approval.

Your plot is a little too narrow for the storage of cars and therefore you will find the garage rather cramped.

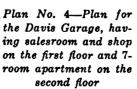
If you want us to make a sketch of your shop layout we shall be glad to do so if you will supply us with more details.

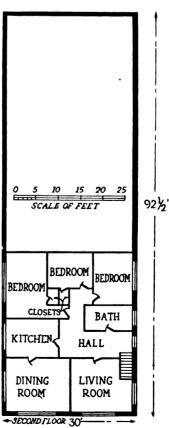
In figuring on an apartment on the second floor, be sure to consult the local fire and health regulations as many communities forbid the building of living quarters over garages.

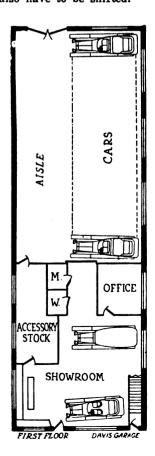
You may possibly find it more convenient to move the accessory stockroom under the stairway so that as much of this room can be used as possible. This would necessitate removal of the office to the other side of the plot and the rest rooms would also have to be shifted.



Plan No. 3—Sales and service building, 50 x 100 ft., on lot 50 x 200 ft., designed for Smith Bros.









Repairshop Shortcuts

From Motor World Mechanics

NO. 2260—REMOVING A SPINDLE BUSHING

A spindle-body bushing is removed by tapping it with either a U. S. Std. or S. A. E. tap and then screwing a bolt or threaded rod into the bushing. A piece of round steel stock which will go easily into the bushing at the other end of the spindle body is placed against the end of the bolt or rod. Hammering on the top of the piece of steel will drive the other bushing out. The operation can then be repeated with the other bushing or it can be driven out directly by driving against the side of the bushing.—Thomas Hill, New York City.

NO. 2261—CLAMP FOR FORD THRUST WASHER

When filing the Ford rear axle thrust washer, a suitable clamp not only saves time but allows a better job to be turned out. A piece of hard wood 2 x 4 x 8 in. has a circle 3% in. diameter and 1/2 in. deep turned out on one of the flat sides. This can best be done on a wood turning lathe, but may be carefully cut out with a chisel. The block is then sawn in two lengthwise, passing the saw cut right through the circle. A piece of belt leather is then tacked across the end to act as a hinge, leaving the other end free to open and close for putting the washer in place or taking it out. When putting the washer in place, the free end is opened, the washer laid flat in the recess and the free ends of the clamp squeezed together.—W. W. Massey, Bridgeport, Conn.

NO. 2262—PREVENTING A VALVE TOOL FROM SLIPPING

It often happens that the chain on a valve tool will flatten out in service and thus allow the handle with the slot to slip down. To overcome this difficulty, a nail or piece of stout wire is inserted in one of the links of the chain and the handle bears against this instead of against a hump in the chain link. The nail can be placed in any link so that the adjustable feature of the valve tool is not lost.—L. B. S., Auto Supply Co., Lock Haven, Pa.

NO. 2263—STARTING SCREWS IN AWKWARD PLACES

A device for starting screws and bolts in cramped places is made from a piece of metal tube and a piece of spring wire. The wire is a little longer than the tube and is inserted in the hole. One

Make a Dollar

H OW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was? Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay you a dollar for every one accepted.

The only requirements are these: 1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.

3—Write on ONE side of the paper only.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

end of the tube is then hammered flat to hold the wire in place and a slot and groove are cut in the opposite end of the tube as shown in the illustration. The screw is placed across the notch and the spring of the wire coming up through the slot holds it in place until the screw has been started when the whole device is easily pulled out.—C. E. Packer, Chicago.

NO. 2264—TAKING UP WEAR IN FORD SPINDLE ARM

Wear on the end of the spindle arm is taken up by replacing the spindle arm bushing with a spindle body bushing. The small end is sawed off and after driving or forcing it into the spindle arm, it is filed off on the large end to make a tight fit between the spindle connecting rod yoke and the arm. The bushing is then reamed out to size for the spindle connecting rod bolt.—A. J. Ingals, North Granville, N. Y.

NO. 2265—REMOVING FORD CAMSHAFT GEAR

A camshaft gear is removed without a gear puller by drawing the end of an old Ford axle shaft down to the chisel shape shown in the illustration and then bending the end at right angles. This operation must be done in a forge, heating the steel to a cherry red. The bend is 1 in. long. In use, the bar is inserted behind the gear Prying up will pull the gear off.—E. Colvin, South Side Garage, Billings, Mont.

NO. 2266—SPARK TESTER FOR FORD

To test the spark being given off at the ends of all four ignition cables at once, a piece of board has five nails driven through it, an extra long one at the center to hang the board over the radiator stay rod and the four nails at the corners bent so that the points come within ½ in. of the center nail. If the ends of the four ignition cables are slipped over these nails and the engine turned over, the sparks will be clearly seen at the center nail.—C. E. Packer. Chicago.

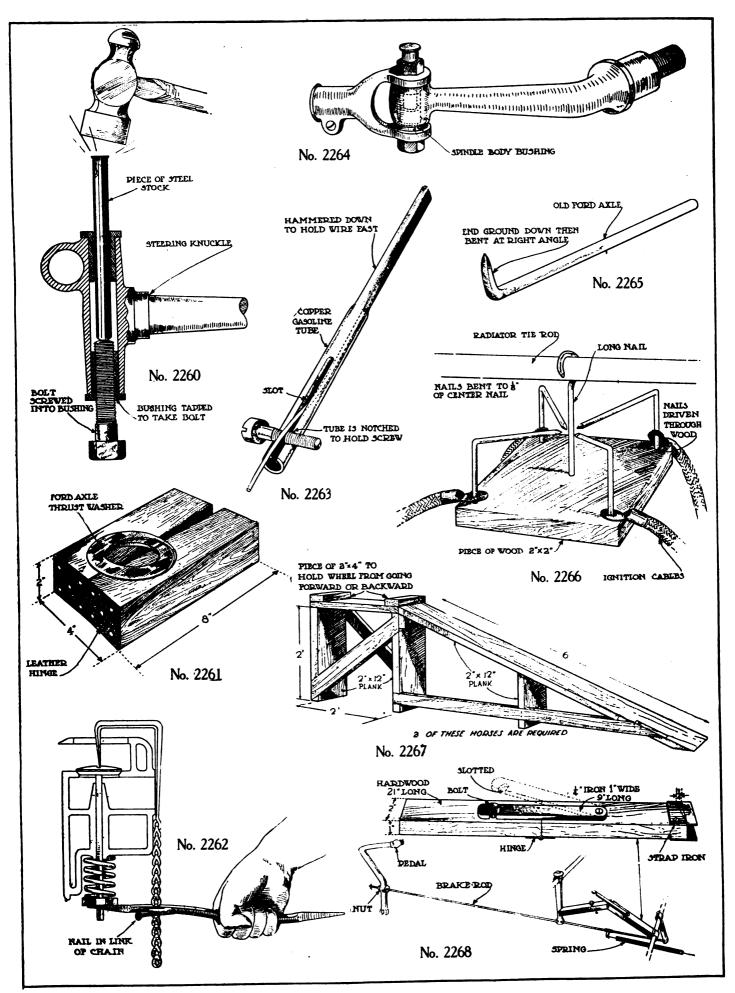
NO. 2267—INCLINED HORSES FOR PIT WORK

A pair of horses with an inclined approach can be placed anywhere in the shop and the car can be driven or pulled up. This will raise either end of the car so that a workman can work with just as much facility as in a pit. The cleats on the flat part of the horse prevent the car from backing down after it has been put in place. The inclined approach should be strongly braced and beveled at the lower end.—G. W. Willis, manager, Krug Motor Co., Washington, Kan.

NO. 2268—SCRIPPS-BOOTH AND OAKLAND BRAKE TAKE-UP

The foot brake on the Oakland or Scripps-Booth may be taken up by using the wedging device shown in the illustration. This is simply a toggle joint specially made to fit these cars and it is inserted between the shaft and the arm so that the nut on the front end can be tightened up. When put in place and straightened out, the catch holds it in this position until the adjustment is completed, when the latch is loosened and the device slipped out. In cutting out the wooden block, the end between the metal pieces is cut at a slight angle so that one side of the device measures 21 in and the other side 211/4 in.—C. F. Green. Scripps-Booth Agency, Jamestown, N. Y.





The RETAIL NEWS

PACIFIC COAST

Jack Olivarri, Santa Ana, Cal., has opened a tire store and vulcanizing shop at 107 South Main Street.

H. A. Worth, Long Beach, Cal., has purchased a part interest in John's Garage, at 230 East Fourth Street, and will manage the sales department and distribute Samson tires.

E. F. Bradley, Long Beach, Cal., has acquired the machine shop in John's Garage.

H. A. Goldwater, Long Beach, Cal., has been appointed manager of the Long Beach branch of the Tire Co. of California,

The City Garage, Inc., Long Beach, Cal., has secured the agency for the Menominee truck.

Herbert & Lee, Long Beach, Cal., operating as the Hendire Tire Co., has moved to its new building at 338 American Avenue.

Frye & De Coudres, Long Beach, Cal., have purchased the tire store and vulcanizing shop at the corner of Ocean and Locust avenues.

P. J. Richards, Long Beach, Cal., has purchased the business of the Pacific Auto Supply Co., at 129 Locust Avenue.

Barnett & Son, Long Beach, Cal., have opened an accessory store at 220 East Broadway.

Traveller & Son, Santa Ana, Cal., are the new distributers for Oldfield tires at 404 West Fourth Street.

F. R. S. Nelson and C. H. Dickison, Los Angeles, Cal., have recently opened the Burlington Garage.

Geo. W. Little and William G. Calder, Los Angeles, have opened a tire and vulcanizing shop at 2192 West Washington Street.

H. L. Bown Co., Orange, Cal., is the new distributer for Gates Half Sole tires at 140 North Glassell Street.

A. L. Waring, Oceanside, Cal., has opened his new vulcanizing and service station as the Seaside Tire Shop at Hill and Michigan Avenues.

B. E. Pecka and R. R. O'Neill, San Diego, Cal., are the new distributers in San Diego County for the Moon car, with salesrooms at the Front Street Garage, corner Front and A Streets.

Gus Olson, Santa Anna, Cal., has recently taken over the garage from Barkley & Dana, formerly of Seattle, Wash.

Roy M. Johnson, Los Angeles, Cal., formerly located at 1882 West Washington Street, has moved into his new shop at 1915 So. Hoover Street.

R. G. Smith, Los Angeles, Cal., has recently taken possession of the tire and vulcanizing business formerly conducted by C. A. Burroughs at 4351 South Moneta Avenue.

J. D. Stail, Whittier, Cal., has recently established an Exide battery and repair shop at the corner of Philadelphia and New-lin Streets.

Rickerhauser & Miller, Hollywood, Cal., have opened Chevrolet and Nash salesrooms at 6403 Hollywood Boulevard.

A. L. Philbrick, Santa Ana, Cal.. has purchased the garage and vulcanizing plant operated as the Santa Ana Vulcanizing and Ignition Works at 517 North Main Street.

O. A. Haley, Santa Ana, Cal., has been appointed distributer for Dodge cars in Orange County and has appointed Charles Mann dealer in Anaheim, and Lillian Yeager dealer in Fullerton.

N. H. Edgar and D. Bruce Hays, Santa Ana, Cal., have purchased the business formerly conducted as the Santa Ana Motor Co., and secured the agency for the Oakland Six. The firm name of Edgar & Hays has been adopted, and salesrooms and service stations are at Broadway and Fifth Street.

Robert E. Reid, Santa Ana, Cal., operating as the Reid Motor Co., has opened Chevrolet salesrooms at 412 Fifth Street, and Robert Atkinson, formerly with Don Lee in San Francisco, has been appointed manager.

Wilson Bros. Commercial Co., Balboa, Cal., has been organized by Wilson Bros. & Co., with a capital stock of \$25,000 and will operate a garage, salesrooms and accessory store, as well as a motor boat manufacturing plant.

The Hamilton-Leatherman Motor Co., Portland, Ore., has been formed by John A. Leatherman, formerly manager of the Portland branch of the Goodyear Tire & Rubber Co., and C. E. Hamilton, until recently Portland dealer for U. S. tires. The company has been made distributer in the Oregon territory for the Stephens Salient Six, with temporary quarters at 330 Burnside Street.

The State Auto Sales Co., Portland, Ore., has taken the agency in Oregon for the Kleiber truck. The firm is newly organized by J. H. Ainscough, Maurice A. Seitz and J. W. Stelger, with headquarters at 430 Burnside Street.

The Seattle Automobile Sales Co., Seattle, Wash., Maxwell and Chandler dealer, recently moved to its addition adjoining its home at 1101 East Pike.

Summit Motor Car Co., Seattle Wash., with William Bradshaw, proprietor, has taken the agency for the Davis car in the Washington territory.

The Flower Garage & Machine Works, Seattle, Wash., distributer for the Commonwealth Motor Co. products, has moved to its new quarters at 20th Avenue and East Madison Street.

The Oregon Tire Co., 61 First Street, Portland. Ore., has taken the agency for McGraw tires.

The Wray Motor Co., Portland, Ore., organized by W. W. Wray, has taken the agency of the Templar Four in Oregon territory, with temporary quarters at 90 North Broadway.

The Ruben Motor Co., Portland, Ore., has been organized by Samuel Herrman and has taken the agency for the King Eight. A new building will be erected at Broadway and Hoyt Street.

The Dodge Auto Agency at Auburn, Wash., will erect a new station at Enumciaw, Wash.

The Simonton Motor Car Co., Portland, Ore., has opened a new automobile repair shop at Fourteenth and Couch streets. Concern will also handle a used car line.

Hall Bros., Oregon City, Ore., have purchased the Independent Garage. The firm has the agency for the Maxwell, Chevrolet and Chalmers cars.

MIDDLE WEST

Crown Service Co., South Bend, Ind., has opened a tire service station at 110 W. Colfax avenue.

L. A. Kienitz, Michigan City, Ind., has bought the interest of his partner, W. Lageman, and will operate the Tire Service Co. alone in the future.

U. L. Lamois, La Porte, Ind., has been ap-

pointed manager of the St. Joseph Tire Co. branch here.

United Battery Service Co., Hammond, Ind., J. Taylor, manager, has opened for business at 498 Hohman street.

Dunskee & Overland, Hammond, Ind., have opened the Liberty Garage at 166 Fayette street.

Automotive Electric Service Co., South Bend, Ind., has opened a service station at 124 E. Jefferson boulevard.

R. A. C. Vuicanizing Station, La Porte. Ind., has opened for business at 603 Michigan avenue.

C. M. Deako, La Porte, Ind., has opened a tire station and shop at 104 West La Salle street.

Jacob Moore, Hammond, Ind., has opened a garage at 160 Fayette street.

George Smith, East Chicago, Ill., is building a new garage and service station.

Granger & Whitaker, Hammond, Ind. have opened a garage at 502 Hohman street.

Newell Taxi Co., Hammond, Ind., has opened an office and service station at 102 State street.

Electric Service Co., Michigan City, Ind., has been formed by L. M. Gast and G. K. Stodebard. They will distribute Exide batteries.

L. J. Casbon, Michigan City, Ind., has taken the agency for Nash cars.

Reliable Auto Repair Shop, South Bend. Ind., has opened for business at 115 Lafayette street.

Atlantic Tire & Rubber Co., South Bend. Ind., has opened a salesroom at Main and Jefferson streets to distribute Standard Four tires.

Service Motor Truck, South Bend, Ind. has opened a salesroom at 207 Main street. Gadill Oli Co., South Bend, Ind., is building a service station at Lafayette and Jefferson streets.

Finstick's Auto Supply Store, La Porte, Ind., has opened a new salesroom at 907 Lincoln Way.

L. J. Carow and W. A. Blank, Jr., Michigan City, Ind., have formed a partnership under the name of Michigan City Auto Sales Co. They will sell Hudson, Buick, Essex. Nash and Chevrolet cars.

Standard Auto Supply Co., Gary, Ind., has opened an accessory store at 29-21 East Sixth avenue.

Gary Tire Corp., Gary, Ind., has opened a salesroom at 538 Washington street.

J. L. Alderson, South Bend. Ind., has opened a tire vulcanizing shop at 407 West South street.

H. & R. Tire Service Co., South Bend, Ind., has opened a salesroom and shop at 113 W. Colfax avenue.

The Indiana Auto Supply Co., La Porte. Ind., has changed its name to the Rubber Bill Co.

Greiner Nash Co., Kenosha, Wis., has moved into its new location at 266 Wisconsin street.

Peter Brody, Kenosha, Wis., is putting up a new building for his Dodge agency.

Achen & Wells Motor Co., Waukegan, Ili. have opened a salesroom for Paige and Allen cars at 217 No. Genesee street.

La Porte Battery Service, La Porte, Ind., has been opened at 610 Indiana Avenue. It will feature Prestolite batteries.

Auto Service Station, Kenosha, Wis., has opened a repairshop at Market and Exchange streets.

William Longials and Lee Westman, Menominee, Mich., have opened a service station. They have secured the agency for the Allenite lubricating system as a side line.



When a Showroom Lacked Cars

F. F. Dukette of Mondon, Mich., and E. C. Wright of Sturgis, Mich., will erect a garage and salesroom in Three Rivers, Mich. Dukette & Wright, as the company will be known, will handle the Ford car and Fordson tractor.

Miller & Tobias, Three Rivers, Mich., have taken the agency for the Scripps-Booth car.

John Koepke, for several years district agent in Ohio for motor trucks, has become general sales manager of both the wholesale and retail departments of the Hinkel Motor Truck Corp., 6519 Carnegie Avenue. The company also has added to its line the Stewart trucks.

The R. L. & M. H. Hays Co., Columbus, Ohio, has taken the solid tire distributorship of the Fisk Rubber Co. for Columbus and Central Ohio.

The Carroll-Thompson Co., Columbus, Ohio, agent for the Ford, has purchased an adjoining lot to its garage and salesroom at 539 East Long Street, and will erect a \$60,000 building. The new place will be 150 by 50 ft., three stories and basement.

The Hancock Buick Co., Findlay, Ohio, will handle Wallis tractors and J. I. Case power farming implements in Northwestern Ohio.

The Columbus Hay Press & Storage Co., Columbus, Ohio, will handle the full J. I. Case Plow Works line.

The Moore Motor Car Co., Danville, Ill., has been reorganizel here and George C. Moore, president. and A. C. Leonard, vice-president, have retired from the company. They will engage in business elsewhere. The new officers elected are E. K. Gallagher, president; J. H. Vicker. vice-president; John Biehl, secretary-treasurer.

R. E. Wood and E. V. Oakwood, Danville, Ill., have taken over the Atwood Garage Co. there.

Yaw & Clark Co., Danville, Ill., have given up their automobile repair shop.

M. A. Hager, Danville, Ill., has taken the Chandler and Cleveland agency here.

James Wright Auto Sales Co., Danville, Ill.. has taken on the distribution of the Monroe car for this territory.

C. E. Surratt, Danville, Ill., has opened a repair shop at 11 Franklin Street.

Weir & Nygren Repair Shop, Danville, Ill., has succeeded Smock & Weir Co.

Earl Rose. Danville, Ill., has taken the distribution of the Pan-American for this territory.

U. M. Jones, Danville, Ill., has opened a repair shop and service station at 22 Hazel Street.

Haskin Bros. Tire Shop, Danville, Ill., has moved to North and Wallace streets.

Henry Huice, Danville, Ill., has succeeded the Danville Buggy Co., and will operate a repair shop here.

EAST

Pottstown Auto & Supply Co., Pottstown, Pa., has reorganized under the name of Lau Motor Co., with its principal service station at 150 High Street, and a sub-station at Royersford, Pa.

H. H. Morrell, New Haven, Conn., has opened an electrical service station, distributing the Titan storage battery for New Haven County, charging and repairing of all makes of batteries, charging electric cars, trucks, etc.

The Stanley Auto Co., Philadelphia, has moved into its new quarters at 639 Broad Street.

Herbert Bros., Philadelphia, have been made distributers for the Cleveland Six in the territory extending from Eastern Penn-



A window display that tells its own story, shown recently at the New York Franklin agency of Glenn A. Tisdale. Tisdale says it drew into the store many inquirers who would have passed an empty front

sylvania, New Jersey, Delaware and Maryland to Washington.

The Harrisburg Motor Car Co., Harrisburg, Pa., has established an agency for the Stearns-Knight cars in the Fishman Carage Building, 104 South Fourth Street. Service also will be maintained for the agency temporarily in the garage.

NORTHWEST

Scheppell Motor Co., 870 Clay street, Dubuque, la., has changed its name to the Dubuque Puick Co. Peter P. Bishop is sales manager.

Chris Christenson, Humboldt, Ia., has taken over the garage formerly owned by Lars Christenson.

Joe Carrenter, Sioux Rapids, Ia., has sold his interest in the West Side garage to Ed Endsley.

C. W. Wier, Story City, Ia., has disposed of the Story City Vulcanizing Co. to Martin Omvig.

C/ L. Livingston, Milford, Ia., has bought the garage there from Murray and Vanderburg.

Moore Brothers, Red Oak, Ia., have opened an accessory and tire store at 209 Coolbaugh Street.

Ciarence Woods, Vinton, Ia., who recently returned from the army, has taken charge of the repair work in the W. J. Bassett garage.

The Schepole Motor Co., Dubuque, Ia., has changed its name to the Dubuque Buick Co. Floyd Lenocker, Dexter, Ia., has bought the White Pole Garage and in the future it will be known as the Lenocker garage.

Charles Burelson, Maquoketa, Ia., has bought out the interest of his partner in the Court House garage.

Bramely & Meyer, Sibley. Ia., have sold their garage to Henry Schemel & Sons, of Alvord, Ia.

The Briscoe Auto Sales Co., Burlington, Ia., has opened a salesroom at 307 South Third Street to handle the Briscoe.

K. C. Roberts, Oskaloosa, Ia., has sold his interest in the Central Garage to his partner, E. A. Cunningham.

The Walton Auto Co., Oskaloosa, Ia., has purchased the building now occupied by the Central Garage.

A. F. Mart, Ames, Ia., has purchased the Banks Garage.

Clinton Vaux and Al Garber, Swea City, Ia., have bough? the Heiken Garage.

Lloyd Babcock, Iowa Falls, Ia., has purchased a one-third interest in the Reo Sales Co.

NEW GARAGES

T. C. McHugh (101 x 120 x 36)

Boise, Ida. F. E. Taylor Co. (100 x 100)...Portland, Ore. E. H. Reuss.....Philadelphia J. C. Hodik.....Philadelphia Kay Garage......Milwaukee, Wis. Elmo E. Hall (30 x 100)......Woodland, Wis. California Avenue Garage Co. Pittsburgh, Pa. D. W. Witham.....Toledo, Ia. Davis Auto Co......Ottumwa, Ia. Walker Motor Co......Estherville, Ia. W. L. Byewater.....Toledo, Ia. E. L. Frye.....Fairfield, Ia. Bert Vaughn......Bloomfield, Ia. Polk Cansler......Enid, Okla. Joseph Morris......Enid, Okla. Hook Garage, 2-story......Houston, Tex. Flickinger & McGunnigle Reserve, Kan. Byron Ball & Arthur Maurer. . Flat River, Mo. Giffen-WolfeFresno, Cal. Overland-Fayette Co...Mount Hope, W. Va.



Automotive Equipment

GUARANTY REPAIR ARM FOR FORD ENGINES

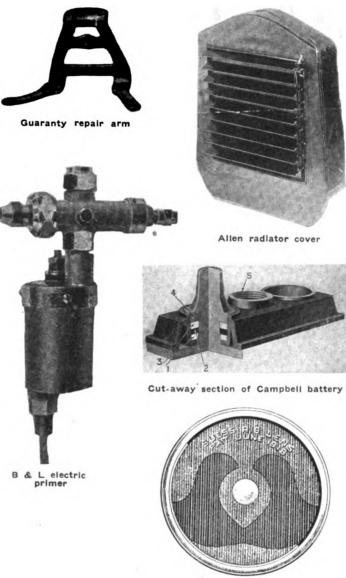
This is a repair arm to replace broken rear engine support arms on Ford engines without the necessity of tearing down the engine. It is attached by bolting the long arms in place under the heads of the crankcase bolts, the regular bolts being used to fasten the other ends to the frame side rails. Patterns for right and left sides of engine separate. Price \$1.25 each.—Guaranty Motors Co., Cambridge, Mass.

B & L ELECTRIC PRIMER

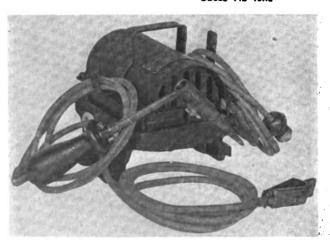
This is a primer which furnishes a hot gasoline vapor which is mixed with the incoming air in the intake manifold and is then ready to be exploded. Gasoline is drawn into the device by a small pump, and the electric current from the batteries heats it in a tube. a resistance wire forming the heating element. When the plunger pump is operated, this gas from the gasoline is injected into the manifold through two small holes. The primer uses 15 amps. at the start and 5 amps, after the coil heats up. The gasoline may be vaporized in from 10 to 15 seconds. Made in several different voltagea. Price \$20 in brass, \$21 in nickel.-Auto Distributing Co.. 410-416 Sycamore Street, Plainfield, N. J.

GENERAL ELECTRIC LEAD-BURNING OUTFIT

This is a lead-burning outfit for battery repair work, the main part being the transformer. It is intended to be connected to any 110-volt alternating current source by means of a 10-ft. cord. The current, after being transformed, is led to the battery post through a quick-action clamp, and the are is controlled by the carbon holder, which is arranged with a heavily insulated handle so that the operator's hand is guarded from the heat. When the pointed carbon pencil is brought in contact with the desired part of the battery post. the lead and carbon become intensely hot, the lead softening and then melting. The device can be used both for tearing down battery connections and for building up posts. The cost



Suess rib lens



General Electric lead burning outfit

for current averages about 8 cents per hour.—General Electric Co., Schenectady, N. Y.

ALLEN SHUTTER RADIATOR

This is a radiator cover with a shutter, the vents of which are controlled from the driver's seat. The vents can be held rigidly in any desired position and when the car is left in a cold place for any length of time the vents may be closed to keep the heat in the engine. The cover is simply slipped in place over the radiator, a hole being provided for the filler. Price \$15.—Allen Auto Specialty Co., 16 West Sixty-first Street, New York City.

CAMPBELL STORAGE BAT-TERY

This is a storage battery specially designed to overcome terminal post leakage and breakage. The illustration shows a cut-away section in which 1 is a heavy rubber gasket, 2 sealing compound which is poured on top of the gasket, 3 another heavy rubber gasket, and 4 a lead-antimony petticoat washer, which is a drive fit between the terminal post and cover, acting as a brace to the plate strap and the terminal post and at the same time acting as a further preventive against leak-age. No. 5 is the vent plug hole.—Campbell Electric Co. 1408 McGee Street, Kansas City. Mo.

SUESS RIB LENS

This is a headlight lens for dimming, diffusing and deflecting the rays so that the road is lighted for a distance of 500 ft. from the car with the strongest light for the first 200 ft. Side light is thrown for 20 ft. each side of the car, and all light is deflected below the driver's eye. Price up to 8% in., \$2.75 per pair; 8½ to 9½ in., \$3.25.—Suess Glass Co.. Eighth and Virginia Streets. Seattle, Wash.

LECTROFLATER AIR COM-PRESSOR

This is a very small model air compressor, which is light enough to be lifted around from one place to another by means of the condensation chamber on





Stewart wire wheel for Fords

top, which acts as a handle. A two-piece housing encloses the motor, the gear train and the compressor cylinder and the end covers, which are fastened with screws, enclose the commutator and brush rigging of the motor at one end and the gear train at the other. The cylinder is fastened to the housing with machine screws through the flange to the cylinder head. A centrifugal fan on the armature shaft draws a stream of air through the parts to keep them cool. The motor is 1/2 hp., and operates on either direct or alternating current. The capacity is 2 cu. ft. of free air per min.



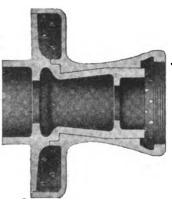
Black & Decker Electroflater

-Black & Decker Mfg. Co., Baltimore, Md.

STEWART WIRE WHEELS FOR FORDS

This is a wire wheel with reverse taper construction and is

intended for use on Fords. The inner hub and the outer hub each have four reverse tapers. and as the outer hub is applied the tapers slip into grooves and a one-eighth turn locks the reverse tapers of the outer



Hub of Stewart wire wheel

hub to those of the inner hub. Each taper has bearing on the entire surface of the other, and bearing surface is maintained until the tapers have entirely worn away. Until the tapers are locked, the hub cap cannot be applied. Inside the hub cap is swiveled a wedge key with four tapered wedges, and this not only secures the wheel to its taper bearings but provides a direct drive with rigidity of wedge bearings. All threads are right hand, and the hub cap screws into the outer hub.—Stewart Wire Wheel Corp., Frankfort, Ind.

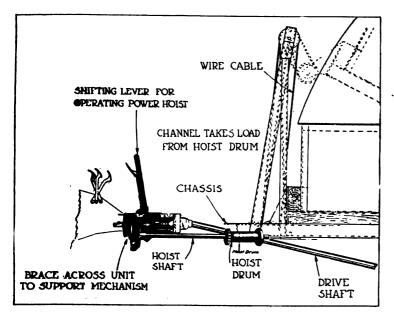
Guaranty Power Hoist and Dump Body for Fords

THIS hoist is designed for installation on the Ford in such a manner that the engine low-speed raises it and the reverse lowers it. The equipment consists of a cast steel housing in which are encased the chrome nickel steel gears and shafts which are attached to the rear of the Ford transmission.

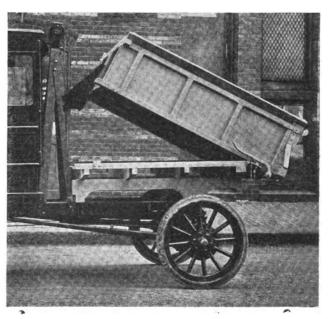
Leading out of this housing is a shaft having a drum on its rear end. On this drum is a cable which winds up in connection with an upright channel steel beam on which are pulleys. A ratchet operating on the drum serves to hold the body in a raised position to facilitate spreading the load, etc.

Operation is effected by placing the Ford high-speed lever in a neutral position, throwing the hoist lever forward and pressing the low-speed pedal. The power is directed through the gears to the pulley and cable and the body is

raised to its unloading position in a few seconds. It is lowered by the use of the reverse pedal. The cost of the complete hoist is \$200; or with 40 or 70 cu. ft. capacity dump body, \$400. Body and hoist can be attached to any truck having Ford power plant, including the Ford 1-ton worm-drive truck. The equipment is made by the Guaranty Motors Co., 436 Massachusetts Avenue, Boston. Mass.



Mechanism and method of installing Guaranty power hoist, driven from the Ford engine



Guaranty power hoist and dump body installed on
Ford chassis

OFFICIAL RESULTS OF

Ohio Tractor Demonstration Tests

Conducted by Department of Agricultural Engineering, Ohio State University, 1919

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TRACTOR ADVERTISING

Moving Toward Conservatism

Records of Dynamometer Tests Officially Conducted at Ohio Demonstrations Show Machines Averaging Close to Listed Ratings—Fuel and Oil Tests Only Important Features Lacking

TEST records of the recent Ohio tractor demonstrations offer encouraging signs of progress toward sane advertising in the industry.

While a majority of the machines fell short of their rated horsepower, the demonstrations showed, at least, that manufacturers are more conservative in their ratings than in former years.

The tests, conducted by the Department of Agricultural Engineering of the Ohio State University, and analyzed in the table on page 34, indicate that where soil conditions were excellent many of the machines went up to or even over their rating. But taking the average of the two tests which each tractor received, it is seen that something like twenty of the twenty-eight machines were under their catalogue figure. Yet in a good many cases the average figure computed from the normal tests under both good and bad conditions comes close to the advertis d rating.

Thus, in a large measure it might safely be stated that altogether the tests show that things are shaping themselves a little better in the tractor industry. The officials who had charge of these tests followed a carefully laid plan, so that nearly every tractor got a test under excellent or at least favorable conditions and also a test under poor conditions. Very often the machine that fell below its rated horsepower under poor soil conditions or footing more than made up the loss when it came to a test under average or good working conditions. For example, the E-B 12-20 under excellent conditions showed 13.20 on the dynamometer and 11.86 with a poor footing, but the average brings the figure to 12.53 hp.

The tractors that came up to their rated horsepower or went over the rating include the Parrett, Wellington, Waterloo Boy, Wallis, International, Emerson-Brantingham, Moline and Hart-Parr. The latter performed particularly well in the tests at Fostoria, where it encountered ideal conditions. The dynamometer registered 3220 lb. pull on the Hart-Parr here, and the machine was traveling at the rate of 271 ft. per min. This gives 26.50 hp. on the draw bar, while the machine is given a rating ordinarily of 15 hp. Also it is interesting

to note that during this test the Hart-Parr was pulling three 14 in. bottoms to a depth of 10.25 in.

Taking the same machine under poor conditions as at Middletown, we find it came very near to its rating, the figure being 14.77, with the plows going down 8.08 in. The figures just mentioned and those in the preceding paragraph are

Read the Opposite Page

Ohio state officials conducted a series of four tractor demonstrations that mean something to dealers in automotive farm equipment. The dynamometer tests, tabulated on the opposite page, show how near the tractors came to their advertised ratings under good and bad STUDY working conditions. THE TABLE! If you handle one of the machines tested it will give you accurate information as to what your tractor will do. not what it is advertised to do.

taken from the maximum test. The figures on this job in the normal tests are but slightly below.

Another tractor that went over its rating by a big margin was the Moline Universal, not only where the conditions were good, but where they were decidedly poor. Ordinarily the Moline is rated at 9 hp., but the average horse power of the two tests gives 16.08 hp.

If consistency is of any value in a tractor test, the Parrett deserves favorable mention. Of course, the machine operated under good or fair conditions, but even so, never did it fall below its rated drawbar horsepower of 12 hp. Its average horsepower rating for the two tests under normal conditions was 12.68. Its lowest figure was 12.25 and the highest 13.11. The Parrett also has a plowing speed ordinarily giv n as 2% m.p.h. In the tests the plowing speeds were as follows: 2.27, 2.32, 2.73 and 2.69 m.p.h.

The heaviest machine tested out was the 15-30 Aultman-Taylor, which weighed 7800 lb., while the lightest job represented was the Fordson with 2700 lb. The Fordson in its tests came very close to its rated drawbar horsepower of 10 hp., the exact average being 9.84 hp. It also exceeded its rated plowing speed of 3 m.p.h., plowing at the rate of 3.09 m.p.h. at the Columbus test, to a depth of 7.68 in. This was during the normal test. In the maximum test the plowing rate slowed down to 1.97, but the plows were going down 8.25 in.

While some of the machines seemed to have fallen short considerably of their rated horsepower, the figures cannot be taken as thoroughly representative of the tractors' performances. Thus, for instance, the Reliable, which is ordinarily rated at 10 hp., showed but 6.22 in averaging the two tests. Rain was falling when the Reliable was tested at Middletown and the footing was poor. At that, during this test the machine plowed within .09 of its plowing speed of 2 m.p.h., but the plowing was not very deep, as shown by the chart.

Three crawler types of tractors were tested, the Cletrac, Monarch and J.T. While these machines fell below their rated horsepower in averaging the normal tests, one of them, the Cletrac, went over its rating of 12 hp. in the maximum tests, with 13.38 and 13.19 hp. The Monarch, which is rated at 18 hp. averaged 14.92 hp., while its highest horsepower attainment was 15.91. The other crawler type, the J.T., fell 3.60 hp. short of its rated 16 hp. in the average figure of the two normal tests.

There is considerable chance to sift the evidence found by the Ohio tests. While it is true the machines were not all tested under exactly the same conditions or the same day, there was, nevertheless, a good averaging up, for where one job got a poor layout on the first trial, it had a chance to come back on the second trial, and vice versa. It is only to be regretted that there was no measurement of the fuel and the oil consumed. Had this been done, it would have been possible to do a great deal of cross checking, but as it is, the results of the Ohio tests are to date the best collection of evidence we have regarding tractor performances. The collection contained the makes now manufactured in quantity.

Trucks and Tractors Shown to Farmer

The Sedalia Demonstration

(Continued from page 19)

The St. Louis caravan included 25 trucks of 1½ to 5 tons, nearly all carrying loads, some of the loads being merchandise to be delivered. No charge for hauling was made. The caravan left St. Louis at 5:30 Wednesday morning, traveled 151 miles over wretched roads and steep grades to Jefferson City, and 69 miles farther Thursday to Sedalia, arriving at 5 p. m.

Over Bad Roads

The St. Louis group selected, designedly, the worst route to Sedalia, the Southern highway. There was only one occasion for service. A driver thought he had cracked a cylinder head; his truck was pulled 18 miles and upon examination was found to be in good condition, running the last half of the journey under its own power.

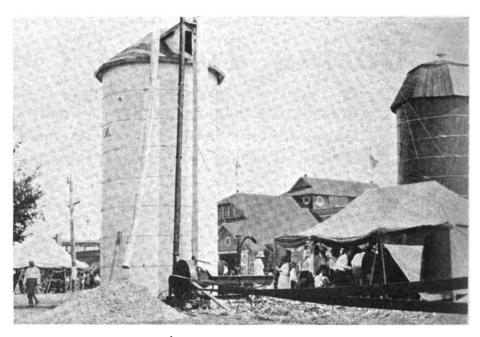
The only special advance provision made along the route for emergency service was notice to the Standard Oil Co. by the St. Louis contingent with reference to the need of gasoline. Otherwise conditions were as any truck operator would arrange. Each driver had his own tools. Widely varying conditions as to the different trucks provided numerous instructive features for dealers and prospects. The brand-new Kansas City trucks, starting without limbering up, got through like veterans. In the St. Louis caravan was a 1909 Packard 5-ton, affectionately referred to as "Grandma," and a 1919 Packard 5-ton. Four new Traffic trucks were loaded, one carrying another Traffic. Goodyear, Goodrich and Firestone trucks with special road demonstration signs were in line.

The two fleets paraded at the fair grounds Friday and through the streets of Sedalia before starting on the return trips.

The ship-by-truck and good roads events at the state fair seem certain to bring about a far broader co-operation between various agencies, not only in Missouri but in the three states. Conferences were held between representatives of the Chambers of Commerce of Kansas City and St. Louis, with state officials, and a tentative plan arranged for stimulating and co-ordinating the collection of data and the promotion of highway transportation of farm products and merchandise.

Does This Story Help You?

The tractor demonstration at Sedalia was far from ideal and the meeting of the truck expeditions was merely an incident of a single day, BUT BOTH YIELDED RESULTS TO PARTICIPATING DISTRIBUTORS AND DEALERS. Would not more thoroughly worked out demonstrations and exhibits prove even



The tractors not only plowed, but drove farm machinery generally at Sedalia. (Silo operation.)

bigger merchandising accelerators in other states?

Are you doing all that you might to sell the automotive idea for power and haulage to the farmers in your district? ARE THE POSSIBILITIES OF THE STATE FAIR WORTH INVESTIGATION?

The National Truck Tour

(Continued from page 16)

cycle police escort going all the way. This was the first night's stop and some demonstration hauling was done. Cars were parked in the downtown district and great interest was shown. A special meeting of the drivers and sales representatives was held that night to iron out little difficulties arising. Diamond T and Signal did demonstration hauling.

Tuesday, Aug. 5, the tour got away for Belvidere, Ill., at 7:10 o'clock in the morning. The rain came down in torrents, but the trucks moved steadily on, no trouble whatever being experienced. At Belvidere 1500 people were addressed by A. R. Kroh, official lecturer. A great many in the audience were farmers and dairymen in to see the display. The band gave a concert. The truck dealers of Belvidere and surrounding towns held a short meeting with Mr. Kroh and it was conducive to much good.

Rockford, the next stop, was reached in good shape and after a short parade through the city the party ate luncheon in the Rotary room of the Nelson Hotel. Jud Joslyn and Murray Bird, Nash and Packard distributers respectively, were very much interested in the tour and its results and petitioned that after the

tour is over a special attempt be made to have a demonstration of some sort in Rockford to boost truck sales and give practical demonstrations to farmers. It was the opinion of these men and other committee members that the demonstration was the best way possible to acquaint the farmer with the pneumatic tired truck.

The tour left Rockford escorted by Joslyn and Bird, who piloted the cavalcade into Freeport. The road was very muddy, due to a 4-hr. rainstorm, but the trucks went right through on schedule time, reaching Freeport, the night stop at 5:45. A band concert was given and Kroh addressed 1500 people from the courthouse steps. After the talk many interested farmers and others came up for personal questions, and this personal meeting broke up only when it was decided that some sleep was necessary to prepare for the next day. The thing standing out prominently as the tour goes on is that the farmer is genuinely interested in his transportation problems and that he is willing to be

Farmers Flag the Train

Wednesday, Aug. 6, the tour got away from Freeport at 7.30 in the morning. About three miles from the town of Lena, fifteen or twenty farmers came out into the road and flagged the train, wishing to look the trucks over. The Selden, Atterbury. Republic and Service trucks were taken into the fields and began hauling sheaf oats to the thresher. The farmers liked the operation and asked many questions. Meanwhile the moving picture machine was grinding out some mighty fine truck

Seven Leading Agricultural States

propaganda for later use. While this demonstration was going on the naval band was entertaining the farmers wives and children.

The demonstration here was convincing because of the extremely soft condition of the roads and the fields from the heavy rains. On leaving, the farmers made the tour officials promise to bring the films back into the neighborhood next fall when they have plenty of time on their hands and can discuss the truck problem more fully.

While Galena was scheduled as the next stop the residents of Hazel Green, Wis., had sent a strong petition in for the truck tour to cancel Galena and come on to Hazel Green, where a big gathering to welcome homecoming soldiers was in progress. The decision was left to the Galena committee, and it decided unanimously in favor of the plan, since all Galena was at Hazel Green anyway. There were more interested farmers, perhaps, at Hazel Green than at any other spot along the route.

Over the hills and into Dubuque the tour wended its way as surely as a Juggernaut, in spite of muddy hills. One truck put on chains, but this was an experiment and it was decided that the chains at this time were not of particular benefit. The cars were parked around the courthouse at Dubuque and after the curious city folk drifted away the interested farmers began to gather around.

Discussion of Tires

Later in the evening a very interesting discussion arose as to the comparative merits of the solid and the air filled tire on the roads over which the trucks had just come. The question arose because the Intercity Haulage Co. was using trucks on solids to cover the same territory the tour had passed over. It was agreed that pneumatics were the most feasible for traction on a poor road. H. A. Kessner, cashier of the First National Bank, made the state-ment that the banks in his city would be glad to co-operate with substantial truck dealers to finance truck sales. He insisted that the films being taken en route be brought back this winter and promised that he would have a large and interested audience. He suggested a day's conference, in which the farmers and the bankers would play a large part.

Thursday, Aug. 7—Left Dubuque at 7:30 on very excellent gravel roads. At Manchester the tour was met by the mayor and the local committee. The trucks were driven to the fair ground and a slow parade was made around the race track so that all might view them. An address was then given from the grandstand to over 2000 people. After the talk personal questions were asked and answered and the interested farmers

milled around the trucks and got more information.

Thomas Noonan, in a conversation here, stated that he had a neighbor, M. H. Shoop, who recently put a 1-ton truck in service on his farm. He is now making three round trips from town, a distance of fourteen miles, hauling tile. He said that with a two-horse team he was sure of only one trip a day.

Audience of 5000

Independence, the next stop, was reached at 1:30, roads generally being good, except for a three-mile detour over dirt roads. Mayor Purdy and the local committee met the caravan. Five thousand people listened to an address and while the farmers were looking the trucks over the tour officials were escorted around to the three banks and with one exception the bankers were interested in financing local truck sales.

Getting away from Independence fine roads were encountered into Waterloo, where Mayor R. C. Thomas and B. B. Hunter, chairman of the local committee. and committee members met the train and escorted it into the city. Mayor Thomas estimated that there were 20,000 people in the vicinity to listen to talks by A. R. Kroh, Lieutenant Willson, of the Naval Band, and the mayor and B. B. Hunter, chairman of the local committee. This was in the evening. A banquet was given the entire truck personnel at the Russell-Lamson hotel by the Kimball Publishing Co. and the Waterloo automobile dealers. At 6:45 the city was covered by a parade of trucks and then the large audience spoken of above was addressed.

Effective Propaganda

Thus at the end of the first week on the road the tour is demonstrating that the idea of the National Association of Truck Sales Managers in proposing and executing this tour was the best propaganda for the sale of motor trucks on the farm that could have been devised. The world still believes that seeing is believing, and it is visible evidence of the efficiency of the motor truck that the farmers are receiving. Too much cannot be said of the splendid co-operation of the truck dealers and other members of the committees along the way. They are making the tour possible by their unselfish efforts.

There will be more vital statements on the tire guarantee nuisance and more opinions on the show dates in next week's MOTOR WORLD. Get set to read them, and to send YOUR OPINIONS to us for publication.

Friday, Aug. 8—At about 7:30 in the morning the trucks were lined up and driven around Orange township, scores of citizens and farmers riding in the vehicles. Numerous stops were made to permit other farmers to inspect the vehicles. The trucks then returned to Waterloo and had lunch and left for La Porte City.

While in La Porte City the local arrangements committee from Vinton, headed by George M. Urice, secretary of the Commercial Club, met the train and escorted it into Vinton. At Vinton there was a parade and the trucks were parked in the business section. After dinner there was a band concert and a talk to the citizens and farmers.

Bankers and Dealers Active

The bankers were much interested in the financing of truck sales and a conference was held with G. D. McElroy, cashier, Farmers' National; A. Ballen, People's Savings, M. J. Collins, Vinton Savings, and W. S. Goodhue, Vinton State Bank. The local truck dealers were very much on the job around the trucks.

Saturday, Aug. 9—The caravan left Vinton at 6:30 a. m., piloted by Owen Berry, of the Truck Service Co. and Winther and Federal agents in Cedar Rapids. En route to Cedar Rapids the train picked up two loads of oats and one load of milk, bringing them to Cedar Rapids market. The cars were parked in front of the Municipal Building and police headquarters and the street roped off, the trucks staying there until Monday morning. At 8 in the evening it is estimated that perhaps 500 farmers were in the audience.

Banquet Held

At 1 o'clock twenty-five members of the caravan and all the truck dealers and members of the Chamber of Commerce and city officials and bankers assembled at the Montrose Hotel at a banquet. Lieutenant Governor Moore acted as toastmaster and eulogized the association for its efforts. He said the motor truck on the farm would greatly aid in bettering conditions. He dwelt on the foresight of the truck manufacturers in going to the great expense with no thought of immediate returns. Kroh put across in a forceful manner the story of the motorization of the farm. Sunday was a rest day in Cedar Rapids except that there was a band concert and there were even more interested farmers in to see the trucks than there were on Saturday.

The tour is now settling down to real business. Sunday the tour impedimenta were to be transferred to as few trucks as possible in order that spare vehicles may be loaded with from 16 to 20 tons of wholesale groceries, fruits, etc., from Cedar Rapids wholesale houses for towns along the route.

News Letters From Trade Centers

PHILADELPHIA

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Opening New Branches

PHILADELPHIA, Aug. 23-The Packard Motor Car Co. of Philadelphia is to have an eighth sales and service unit under its supervision. Flans are being made for the erection in Atlantic City of a Packard sales and service station. The seven present Packard units in the Philadelphia territory are at Harrisburg, Bethlehem, Lancaster, Reading and Williamsport, Pa., and Camden and Trenton, N. J.

The Automobile Sales Corp. of Philadelphia, Cadillac distributer, has opened a branch and service station at 525 Market Street, Camden, N. J. R. Scott Smith, Jr., has been appointed branch manager and C. S. Jaggard technical and service manager.

Lieut.-Col. James W. Florida, who recently returned from eighteen months' service in France as executive officer in the American Motor Transport Corps, has been appointed supervisor of transportation for the Packard Motor Car Co. of Philadelphia. He formerly was a racing driver of note and was a contender for the Vanderbilt cup. He was connected for many years with the Locomobile company.

The program for the Philadelphia county fair, to be held at Byberry, Sept. 1 to 5, is being made up and provides for tractor demonstrations and a motor truck show.

Demonstrations of the New Britain hand tractor will be held on Aug. 27 at Pencoyd Farms, Bala, Pa., and by Thomas Meehan Sons, Germantown.

The West Arch Garage, 6237 Arch Street, is now distributer of the Dixie Flver.

The Eureka Sales Co., Wilkes-Barre, Pa., L. A. Tiffany, manager, has been appointed distributer for Maxwell and Chalmers passenger cars and Maxwell trucks.

The Miller Auto Co., Inc., Harrisburg, Pa., distributer of Oldsmobile, Maxwell and Haynes passenger cars and Mack trucks, has moved into temporary quarters at Third and Locust streets while its building is being remodeled. The service station and parts department are being maintained at the old address, 68 South Cameron Street.

The Don Motor Car Co., 19 South Fourth Street, Reading, Pa., has filed articles of incorporation to conduct a general automobile business. Its capital stock is given as \$25,000 and J. Thomas Hardesty is treasurer of the corporation, which is handling Maxwell cars and service in Reading.

John Cleary, formerly with the Cadillac Philadelphia branch, is now advertising manager of the Cadillac Motor Car Co., Detroit. He succeeds Leo N. Burnett, who resigned to handle the advertising for the new company being formed by D. McCall White. Cleary handled the Cadillac advertising while Mr. Burnett was in the army, being relieved by Mr. Burnett when he returned to civilian life several months ago.

DES MOINES

Strike Relieved by Cars

DES MOINES, IA., Aug. 21-Motor cars and trucks stepped into the breach when employees of the local street railway company went on strike and have been operated so efficiently that Des Moines business houses report that business is practically normal. Theaters report a falling off in attendance of only a small percentage. Scores of large employers of labor have used trucks in getting their employees to and from work and the public service companies have depended wholly on the motor car. Hundreds of jitneys have been busy. The work of the motor car has been so successful during the emergency that at least one daily newspaper, on its editorial page, has called attention to the difference between the strike conditions of to-day and those of ten years ago before the motor car had come into such universal use.

The Hippee-States Co., automotive equipment jobber, held a short convention for its salesmen here one day this week. There were twenty-six salesmen in attendance. One of the features of the meeting was a banquet at the Ft. Des Moines hotel, which was presided over by manager Lisston.

The Des Moines Auto Co. has taken the local agency for the Monroe.

The Iowa, Truck & Tractor Co. has recently closed a contract which will give that organization the Yankee tractor distribution in the states of Iowa, Nebraska and South Dakota.

French, Beamer & Wissler have moved into their permanent quarters at 1731 Grand Ave. The company will job accessories and is featuring the Hassler shock absorber. All members of the firm were formerly associated with the Herring Motor Co.

The Brown Camp Hardware Co. will distribute Cupples tires in central and western Iowa.

NEW ORLEANS

Traces Motor Theft

NEW ORLEANS, LA., Aug. 23-With automobile thefts here averaging two a day, Frank T. Mooney, superintendent of police, has established a bureau to facilitate the tracing of stolen cars and the capture and conviction of auto thieves

Southern Louisiana dealers are affiliating rapidly with the Louisiana-Mississippi Automotive Trades Association. Recently branch associations have been formed at Jeanerette, New Iberia, Franklin, Crowley and Jennings. C. U. McDowell, secretary and general manager, is on tour of the state, organizing these branches.

Business in the used car is improving in the South, but the dealers in new cars are apparently getting away from the handling of used cars, and are gradually attempting to drop the taking of used cars in part payment for new ones.

Fred Derbes, formerly sales manager for one of the largest firms in New Orleans, is the latest to branch out for himself in the business of buying and selling used cars, at 811 St. Charles Street.

The Thomas J. Dugan Co., formed recently with T. J. Dugan as president, and Capt. Peter Hamilton, vice-president, will handle Briscoe passenger cars, Mobile tractors and Gary trucks, in addition to the new Kline car.

The Liberty Automobile Co., distribu ter of National cars and Kelly-Spring field trucks, has taken over the agencies for the King Eight and the Elcar. L. Villeo is president of the company, and the offices are at 400 North Rampart

B. H. Sanford, for many years closely connected with the automobile industry in the South, has joined the sales staff of the King Motor Car Co., distributer of the Winton, Allen and Reo passenger cars and Reo trucks.

Charles B. Teft and Harold Murdoch, both recently returned from service with the American Expeditionary Force, have joined the Sherrouse Motor Car Co. as salesmen.

Charles A. Jones, of New Orleans, and Ray Latson, of Los Angeles, Cal., have opened a welding shop for special attention to automobile work, at 716 Ferdido Street.

Columbus, Miss., dealers met Aug. 21. and affiliated with the Louisiana-Mississippi Automotive Trades Association as a local branch.



NEW YORK

Deliveries Still Slow

NEW YORK, Aug. 26-Deliveries of cars have showed little improvement dur-August, and dealers are still taking orders subject to two or three months' delay. Branch managers and dealers generally have been promised a decided increase in shipments from the factories. however, for the near future, some to take effect Sept. 1, others a month later.

Men handling all the higher priced grades of cars report a strong growth in the demand for closed bodies. The closed car idea has taken so strong a hold of Franklin buyers, according to Glenn A. Tisdale, metropolitan dealer, that his orders for 1920 call for 66 per cent of that type of body. Tisdale goes so far as to predict that within a very few years the open car will be a thing of the past.

The Row "did itself proud" last week entertaining Harry G. Moock, manager of the National Automobile Dealers Association, who is making a trip for his organization through the East. Moock spent several days in New York, meeting many of the factory representatives, distributers and dealers and officers of the New York Automobile Dealers Association, all of whose members are affiliated with the N. A. D. A. Moock found keen interest here in the activities of the National association to safeguard the industry from harmful legislation and to promote generally the interests of automobile merchandising.

Fred G. Cole, Jr., formerly of Cole & Dixon, Inc., has established a truck sales agency of his own at 236 West Fiftyfourth Street, where he is handling the United States truck for New York and Connecticut. P. B. Haynes, formerly with Cole & Dixon is with Cole as secretary and general manager. Cole & Dixon continues in business at 617 West Fifty-sixth street.

George W. Copp, Inc., has opened a salesroom at 236 West Fifty-fourth Street for the anchor glass enclosed demountable top for the Ford chassis.

CHICAGO

Lacks New Cars

CHICAGO, Aug. 23-Dealers here are facing the same problems as elsewhere, few deliveries to meet the large number of available sales. This condition has been apparent throughout the summer months and is similar to that of other cities. Many would-be automobile owners have been forced to continue without cars and many others are hanging on grimly to contracts, hoping that soon deliveries will come through to relieve the shortage. Some contracts long held have suffered cancellation, due to this inability to deliver.

The result has been an unusual demand for used cars. But even here, the offerings have not been as high as expected and few of these are available Owners, knowing the shortage in new cars, have held on to old models and, it is expected, will continue to do so until the situation becomes less strained.

Dealers here have co-operated this week in endeavoring to make successes out of two events, both connected with motors. The first was the Orphans' Automobile Day Outing, held earlier in the week, and the second is the Elgin Road Race to-day. Nearly every establishment, either of dealers or garage owner, has co-operated in advertising the races and a large attendance is planned. The hopes are that this year's attendance at the big event will be a record breaker, from every standpoint.

HARTFORD

Canvasses Used Car Market

HARTFORD, CONN., Aug. 23-In order to keep promises on delivery, Hartford dealers have found it necessary to drive cars over the road from the factory. Capt. William E. Carney is in charge of a detail bringing back ten Oaklands for the A. C. Hine Co. R. G. Collins of the same concern is in charge of a string of Coles coming over the road from Indianapolis. Chevrolets are coming the same way and so are some of the Reos. The Harrington Hudson Co. has organized a crew to bring cars from the Detroit-Hudson-Essex factories.

There are plenty of used cars in Hartford. This assertion is made by William M. Turnbull, general manager of the Colonial Automobile Co., who canvassed the dealers and found a total of 173 cars, divided as follows: Allen 2, Auburn 1, Apperson 1, Briscoe 1, Buick 25, Cadillac 6, Chalmers 4, Columbia 1, Cole 3, Chevrolet 6, Chandler 1, Crow-Gebhart 1, Dodge 6, Dort 2, Detroiter 1, Franklin 1, Ford 28, Haynes 2, Hudson 4, Hupmobile 3, Jordan 2, King 1, Liberty 1, Mitchell 1, Marmon 1, Metz 3, Mercer 1, Maxwell 6, National 3, Overland 15, Oldsmobile 3, Pierce-Arrow 4, Paige 6, Reo 5, Ross 1, Regal 1, Scripps-Booth 1, Studebaker 3, Saxon 1, Stevens 1, Stearns 6, Velie 3, and three other light cars, making a total of 173 machines advertised by dealers and acknowledged to be in their stock.

Several dealers have asked for copies of the canvass and all members of the dealers' association will know the whole story.

C. R. Booth of Atlantic City, N. J., has been appointed manager of the Hartford branch of the Firestone Tire & Rubber Co., succeeding Robert M Ruble who opened up the branch last February. Mr. Ruble goes to Springfield, Mass. Earl H. Taber, Hartford, Conn., has

been elected vice-president of Russell P.

Taber, Inc. Mr. Taber also becomes a member of the Board of Directors and sales manager of the passenger car department. R. G. Remington, sales manager of the truck department, has been taken into the firm and also made a member of the board of directors.

D. A. Tryon, Hartford, Conn., for many years service manager of the Britton Co., has formed a partnership with S. M. Harris and taken over the Wethersfield Avenue Garage, 266 Wethersfield Avenue.

KANSAS CITY

Increasing Distribution

KANSAS CITY, MO., Aug. 23-Large increase in distribution of motor cars. trucks and tractors in Kansas City territory is reflected in the influx of accessory distributers. Many manufacturers are entering the territory with branches, and seeking warehouse space for goods.

The Kansas City Automobile Supply Co., the oldest wholesale and retail establishment of the kind in Kansas City, is in new hands. The business was established by J. H. Wittman and Otto Wittman. The purchasers of the business are Thomas E. Hafer, for ten years in accessory selling, and George N. Lockridge, an attorney. Mr. Hafer is president and sales manager, and Mr. Lockridge secretary-treasurer of the company, which will continue under the old name. The company occupies three stories and basement at 1504 Grand Avenue. Otto Wittman retires from active business.

The K. C. Automobile Supply Co. will continue to distribute, in its territory, the best camping equipment made by the J. H. Wittman Manufacturing Co.

Major A. L. Ellwood, who opened the Nordyke & Marmon branch in Kansas City four years ago, is president of Ellwood Motors, a corporation organized to take over Marmon distribution in Kansas City territory; E. O. Mill, formerly with the National Motor Car & Vehicle Corp., is vice-president; H. A. Ahrens, secretary-treasurer, and W. J. Phelps, assistant secretary-treasurer. Major Ellwood was in the air service for assistant secretary-treasurer. eleven months.

T. J. Ragland, with the Garford Motor Truck Co. of Missouri, and George D. Scearce have formed a partnership for distribution of Garford trucks, having acquired the business from R. T. Conger, president of the former Garford company. Their territory is Western Missouri and Kansas.

A temporary structure to house the motor and tractor shows is being erected opposite the Convention Hall for the Farm Congress and for the American Royal Live Stock show this fall. It is reported that there are plans for a permanent building on this tract, to be used in conjunction with the Convention Hall for shows.



Aberdeen Stages Another **National Tractor Fiasco**

Many Machines Shown in a Demonstration That Was Extensively Advertised and Elaborately Prepared— Need Apparent for Local Showings

ABERDEEN, S. D., Aug. 21 (Staff Correspondence) - Another tractor demonstration, sanctioned by the National Implement and Vehicle Association, has been staged and played its little piece to an audience smaller than ever. There have been more farmers in attendance at some of the local demonstrations and state affairs during the last few weeks than were drawn to Aberdeen by the elaborate preparation and extensive advertising. It must be evident to even the most obtuse advocates of national demonstrations that such showings have lost their power to attract and have completely outlived their usefulness.

Aberdeen arranged for and expected a crowd of at least an average of 10,000 a day. On Tuesday, the first day of the demonstration, only a few hundred farmers were present. A liberal estimate of the crowd on Wednesday would be 5000 and the third day was almost a repetition of the first. It was both disappointing and conclusive—disappointing as the expectations of the Aberdeen people were not realized, and conclusive in determining that a national tractor demonstration no longer can draw a crowd from any distance or of generous proportions even from a local field. Such demonstrations should be discontinued.

The demonstration here was conducted under the same rules and in accordance with the ideas that governed the larger event at Wichita. Beyond plowing and fitting, there was no effort made to demonstrate anything. Nothing was attempted or accomplished by the tractors in the way of establishing their right to meet the requirements of the farmer. Just as in the past, the machines demonstrated merely their ability to pull a plow satisfactorily under expert guidance. That was all. This does not interest the farmer any more. He knows a tractor will do what it did at Aberdeen. Why should he waste his time looking at it?

National Demonstrations Dead

Tractor men and local enthusiasts are trying to explain the lack of interest and attendance upon the score that the farmers were too busy with their threshing and other fall work to take the time to come to the show. This was the same excuse that was alleged at Wichita by the way. But the more sophisticated will not accept that as a valid reason and will persist in their opinion that national tractor demonstrations are a dead issue and should be discontinued.

This seems now to be the opinion of some of the tractor manufacturers who hitherto have been insistent that the big national show was the proper way to demonstrate tractors. Even the most obstinate are weakening and are coming to the point where they are willing to admit that they may have been mistaken in their loyalty to the national show idea.

Shows to Be Local

This does not mean, however, that the future will see no tractor demonstrations. Such events are likely to be far more numerous than ever, but they will be of a different character. The inclination at present seems to be to leave the determination of time and place to local tractor interests, distributers and dealers. This would take the management of demonstrations out of the hands of the manufacturers and give them but a subordinate part. In other words, they merely would lend their assistance to the local selling organizations.

Coincident with their decline of interest in national demonstrations, the manufacturers are beginning to wake up to the relatively greater importance to them of the annual national tractor indoor show. They are beginning to realize that their interest henceforth lies in quickening the interest of the engineer, the distributer and the dealer. and they are coming to see that a centrally located annual show, competently directed, will do more good than a big demonstration, and that it will cost far less money.

With the growth of this conviction, a sentiment is growing that Chicago is the logical and ideal place for such a show and that it should be conducted by the National Implement and Vehicle Association. The manufacturers are beginning to think their annual show is too big and too important a thing to be left to the management of private individ-

The demonstration here lent emphasis to the belief that tractor demonstrations should be more local in character. In moving from Wichita to Aberdeen, a different set of conditions is encountered. These necessitate some change in tractor types and particularly in the types of the implements. An indication of this difference lies in the greater proportion of large capacity tractors shown here, as compared with Wichita, and in the fact that, while all the plows at Wichita were of the lighter engine type, with a considerable sprinkling of disk plows, a large

proportion here were of the heavy engine gang type with but one disk plow used. Many of the machines for use behind the tractor, so characteristic of the winter wheat sections, are unknown in this country of spring wheat, just as there are a few distinctive machines used here that are unknown farther south.

Eighty-One Shown

On the first day of the demonstration here there were eighty-one tractors on the demonstration fields, representing thirty-two makes. Fifty-nine of these pulled plows, while the remainder were attached to various other tools running all the way from a drag harrow to a straw spreader. Only one concern, the Emerson-Brantingham Implement Co., went into the demonstration with anything but a mouldboard plow. The E-B company showed a disk in the hope of arousing some interest in it.

Taking the show as a whole, including tractors and tractor drawn equipment, it was the biggest thing of the kind ever put on in the Northwest, and was fairly representative of the advances that have been made in power farming during the last few years. In this respect it was an eyeopener to such visitors as came. Tractors of the following makes were represented:

International, Turner, Liberty, Heider, Bates, Waterloo Boy, Russell, E-B, Moline, Cletrac, Townsend, Wallis, La Crosse, Hart-Parr, Monarch, Eagle, Huber, Fordson, Plowman, Holt, Case, Parrett, Aultman-Taylor, Gray, OilPull, Flour City, Twin City, Avery, Stinson, Illinois, Dakota, Farm Horse.

The only distinctive motor cultivator display was the Tu-Ro. A number of other concerns were entered and had reserved exhibition space but were unrepresented by machines because of the inability of the crippled railroads to get the shipments here on time. Among the unfortunates were the Lauson, the Pioneer and the Frick. The Allwork got in on the second day.

Small Accessory Display

The accessory display was meagre. Many of the companies were represented by factory men and traveling men, but there were few displays. The accessory tents instead covered a rather comprehensive exhibit of the automotive resources of the territory in the way of automobiles, motor trucks and farm lighting plants. There were a dozen or more of the former and at least five of the latter, indicating the importance these departments of the automotive industry are assuming here.

Aberdeen outdid herself in efforts to take care of the crowds and to amuse them. In fact, never before has so great an effort been made by any city favored with a tractor demonstration. The housing resources of the city were pooled and everyone was taken care of comfortably and cheaply. Elaborate amusement arrangements also were made, with a continuous street fair and carnival, daily parades and baseball games. Some of



the tractor men thought there was too much to do because the tractor show suffered in consequence in their opinion.

The weather was ideal, bright and clear and not too hot. But the soil was dry and the high winds prevalent in Dakota at this season of the year had a lot of fun with the dust by moving it from place to place and depositing liberal amounts of it where it never was intended to be and where it produced the greatest amount of bodily discomfort.

Bill Regulating Interstate Traffic Now in Congress

ST. LOUIS, MO., Aug. 23—A decision that the Sanders bill now pending in Congress would regulate all interstate traffic of automobiles and that it would be of wider influence than was planned upon its introduction, has been given by the National Automobile Dealers' Association. This measure, known as House Bill 540, was drawn for the purpose of Permitting cars licensed in the District of Columbia to operate in Maryland without additional registration, an arrangement not provided for by the laws of that state.

However, officials of the N. A. D. A. here, through C. A. Vane, the assistant business manager, have expressed the opinion that the bill will take care of a situation anywhere else similar to that in the District of Columbia. The measure is worded as follows:—
"nor shall any owner of such vehicle who has complied with the laws of his own State as to registration, license, tagging, or tax be required, in order to operate the same vehicle in any other State, Territory, or District, to make any additional registration or secure any other license or tag or pay any additional tax.

The N. A. D. A. belief is that the bill will aid in eliminating registration friction existing between various states at places such as Washington, D. C., Davenport, Iowa, East St. Louis, Memphis, and Kansas City. The association is behind the bill and hopes to see it passed.

Kelly-Springfield Orders

NEW YORK, Aug. 21—Contracts have been closed with the Kelly-Springfield Tire Co. by the Packard Motor Car Co. for its standard equipment for passenger cars and trucks; by the Federal Truck Co. for pneumatic tires exclusively; by the Winton Motor Car Co. and the White Motor Car Co. for standard equipment on their passanger cars.

Guthard to Take Charge of Wrench Manufacture

BILLINGS, MONT., Aug. 21—E. C. Guthard has left for Chicago to take active charge of the Edgar C. Guthard Co., Chicago, manufacturer of Billings wrenches. He disposed of his interest in the Northwestern Auto Supply Co. here, which he organized in 1914.

Duesenberg Engines Sweep To Victory in Elgin Race

Milton Takes First Place in Slow Time—Mulford Set Record Until Forced Out Half Way Around—Sarles and Schillo Are Second and Third

THE FINISH AT ELGIN

Position	Car and Driver	Corrected Time	M.P.H.
2 3 4 5 6	Duesenberg Milton Roamer, Sarles Mercer, Schillo Philbrin Vall Roamer, Hitke Peugeot, Harvey Oldfield, Stein	4:05:27 4:30:97 4:41:38 4:45:20 Flagged Flagged Flagged	73.9 67.8 64.35 63.98

ELGIN, ILL., Aug. 23—Duesenberg engines almost had things all their own way in the Elgin National Road Race of 301 miles to-day, but a Mercer came in third and in the money. Of the seven cars to finish Duesenberg engined cars placed one, two, four and five. Duesenberg brothers, who have been consistent supporters of road racing for many years, never yet succeeded in placing a Duesenberg car as the winner of the Elgin National, although the Masons carrying the same engine won the Chicago Automobile Club trophy race several years ago.

Tom Milton in an eight-cylinder Duesenberg car, took first place, completing the 301 and a fraction miles, in 4 hr. 5 min. 27 sec., an average speed of 73.9 miles per hour. Milton's car is the same one in which he run the Uniontown race, a few weeks ago.

Roscoe Sarles took second. His Roamer was followed by a Mercer driven by Schillo for third. Vail, driving a Philbrin, placed fourth. This car is the Duesenberg that Thurman formerly drove and is practically the same as before, except for the use of Philbrin ignition. Hitke in a Roamer was fifth, but was flagged on the thirty-fifth lap.

Mulford's Fast Time

The race was not run nearly as fast as was the last Elgin in 1915, when Gil Anderson put a Stutz over the distance at an average of 77.25 miles per hour. Had not both Ralph Mulford and Arthur Kline encountered engine trouble which put them out of the race when they were in the lead, the time would have been very much faster and probably would have set a new track record for the distance. When the race was half over, Mulford was leading easily and had averaged 78.4 miles per hour for the first 150 miles This is faster than the distance had ever been negotiated in the past.

Mulford's Duesenberg was green, and work on it had been rushed to get it out of the factory in time for the race.

Lubrication troubles, due probably to a clogged oil lead, closed up the eightcylinder engine after Mulford had covered 155 miles. Mulford had led until that time with Arthur Kline, Tom Alley in the Bender Special, and Milton fighting for position behind him. When Mulford was eliminated, Arthur Kline took the lead and held it until he began to develop lubrication trouble, gave up first place to Milton and finally withdrew with a burned-out bearing. Then Milton assumed the lead, being nearly half an hour ahead of anyone else. From that on, he was never threatened. Alley, who for better than one-half of the race, had been a serious contender, had to leave the course on account of broken water connections.

Alley's performance was watched with special interest because his car was equipped with hydraulic brakes on all four wheels. This gave him advantage over all cars with the conventional two-wheel brakes, because he could approach the turns much more rapidly and pull down his speed in a hurry, without so much danger of skidding. It was noticeable that whereas most of the drivers shut off some distance from the turn below the grandstand, Alley almost ran into it before shutting off.

Durant in a Spill

Of the 15 cars that entered, 13 started. Percy Ford's Haynes was eliminated the day before in practice, on account of engine trouble, and E. J. Whaley's Hudson failed to start because some necessary parts did not arrive in time. There was only one accident of moment, and that resulted in no serious injury Clifford Durant, in a Chevrolet Special, was struck by a stone thrown by the tire of another car in his first lap. The stone knocked him unconscious, and the car left the road, rolled over three times in a barbed wire fence, landing with the wire about tiself like a reel. Durant and his mechanic were both scratched by the wire, and Durant was bruised by the stone, but both were about in a short time.

Expectations of attendance were not realized, and the attendance did not come up to that of the last Elgin in 1915. Nevertheless, there were sufficient receipts to make the race financially successful to the promoters.

Rumors of vandalism before the race seemed to be confirmed when many tires had to be changed because they had picked up large roofing tacks.



CAR THEFTS BOOST INSURANCE RATES

N. A. D. A. Report Shows Greatest Advance in Cheap Light Cars—Bill Suggests Remedy

ST. LOUIS, MO., Aug. 25—How thefts of automobiles have boosted theft insurance rates, in some cases nearly 2000 per cent in five years, is shown in a report to the National Automobile Dealers' Association by the Automobile Insurance Co. of St. Louis from records compiled at St. Louis, Kansas City, Chicago, Detroit, Denver, Memphis and Wichita, Kan.

Figures for other cities are about on a parity with the rates quoted. The tables furnished are for Buick, Cadillac, Dodge, Ford, Packard and Pierce-Arrow cars. The table reveals that the owner of small, light, cheap cars is the one who suffers principally at the hands of automobile thieves, the rates on the larger cars having increased only slightly. The rates follow:

tes follow:		
ST. L	OUIS	
J	1915	1919
Buick	\$4.25	\$45.13
Cadillac	12.00	30.00
Doage	3.75 2.75	35.63
Ford	2.75	42.63
Packard Pierce-Arrow	12.50 21.50	18.75 32.25
		02.20
KANSA		
Dutate	1915 \$4.50	1919 \$42.75
Buick Cadillac	9.00	22.50
Dodge	3.75	35.63
Ford	2.00	31.00
Packard	12.00	18.00
Pierce-Arrow	23.50	33. 75
CHIC	ODA	
	1915	1919
Buick	\$3.75	\$ 35. 63
Cadillac	9.50	23.75
Dodge Ford	3.50 1.75	33.25 27.13
Packard	17.30	27.13 26.65
Pierce-Arrow	24.50	36.75
DET	ROIT	
	1915	1919
Buick	\$7.50	\$71.25
Cadillac	9.00	22.50
Dodge	3.50 1.50	22.25 23.25
Ford Packard	20.00	30.00
Pierce-Arrow	20.00	30.00
	VER	
22	1915	1919
Buick	\$3.75	\$24.13
Cadillac	5.00	17.00
Dodge	2.50	16.25
Ford Packard (1914)	2.00 15.00	21.00 15.00
Pierce-Arrow	20.00	20.00
	PHIS	
	1915	1919
Buick	\$4.50	\$27.00
Cadillac Dodge	7.50	9.00
Dodge	3.50	21.00
Ford Packard	$\frac{2.00}{12.50}$	22.50 6.25
Pierce-Arrow	20.50	10.25
	HITA	20,20
**10	1915	1919
Buick	\$2.50	\$47.50
Cadillac	4.50	\$47.50 22.50
Dodge	3.75	35 63
Ford Packard	2.25 22.50	34.88 33.75
Pierce-Arrow	19.25	29.88
Tierce-Arrow	27.20	20.00

Cities that border on two or more states, it has been found, are the most fertile fields for automobile thieves. Cars stolen in one state are easily driven across the line and then the state in which the car was stolen is powerless

to summon as witnesses the parties to whom the stolen cars are disposed of.

To correct this condition, Representative Cleveland A. Newton of Missouri has a bill which he will introduce shortly to make it a federal offense to steal an automobile in one state and drive it into another. This would permit the trial court to summon witnesses from any state in the union if necessary to procure a conviction. The Newton bill was drawn by William Baer, Assistant Circuit Attorney of St. Louis, and is endorsed by the National Automobile Dealers' Association and the St. Louis Chamber of Commerce.

Two youthful automotive dealers—hardly more than boys—in western New York have won from their distributer the title of "master tractor salesmen." In less than a year they placed thirty-seven tractors in thirty-two square miles of territory.

How?

These lads put into practice the old-as-the-hills idea of the entering wedge.

Read about the wedge and the business it pried loose in next week's MOTOR WORLD.

HUDSON AND ESSEX SUED ON BIG CLAIM

DETROIT, Aug. 23—Lewis Geyler, formerly Chicago distributer for the Hudson and Essex lines, has filed suit for \$800,000 damages against the Hudson Motor Car Co. and the Essex Motors. The suit arises out of the alleged cancellation of the Geyler company's contract as distributer for the Hudson company. This contract was cancelled June 1. The Chicago firm alleges that it acted as a distributing agent for the manufacturers, rather than as an independent salesman, and is therefore entitled to commissions on the sales of several hundred automobiles sold for delivery between June 1 and Nov. 30.

Apperson Advances Prices

KOKOMO, IND., Aug. 21—Due to high labor and material costs, the Apperson Bros. Automobile Co. raised the prices on its Standard 8-20 seven passenger and four passenger sportster \$325, from \$2,625 to \$2,950, its Anniversary seven passenger touring and four passenger tourster remaining \$4,000.

The enclosed models of its Standard chassis will list at \$4,000 in all types, namely: seven and six passenger Sedan; four passenger two door coupe, three passenger two door coupe, and the four passenger four door Sedanette. The Anniversary enclosed jobs are priced at \$5,500.

\$5,000,000 TO BE SPENT ON BRITISH FORD PLANT

New Policy Includes Immediate Price Reduction and Exclusive Ford Agencies

LONDON, Aug. 9 (Special Correspondence)—Warren C. Anderson, the Ford company's new organizer of the British business, has just disclosed his policy. It embodies three important points: (1) an immediate reduction in price; (2) setting up exclusive Ford agencies with a standard of service and garage equipment apparently based on the Ford company's American standard, and (3) an expenditure of five million dollars on the extension and remodeling of the present shops at Trafford Park, Manchester. It is contemplated to start production there of 25,000 cars.

These points are covered by the following references. The present British prices of Ford cars are:

Old Price	New Price
Touring car£250 (\$1,250)	£220 (\$1,100)
Ford van£260 (\$1,800)	£210 (\$1,050)
Ford chassis£200 (\$1,000)	£170 (\$850)
Ford town car, or landaulet	
(not made for some time, but	
again available)	£300 (\$1,5000)
Ford ton truck chassis	£200 (\$1,000)

These prices are all quoted free on rai!, or for delivery at the works, Manchester.

Further, the Ford company is arranging for a series of all-Ford depots in every important center in the Kingdom. A dealer who elects to handle Ford cars in future may not handle any other make of car. He must be an exclusive dealer and have premises specially fitted up with a qualified staff of mechanics, salesmen, demonstrators, etc.

Under the new arrangement these Ford service depots will be restricted in their sales of Ford cars, inasmuch as they will only be allowed to sell the cars at the makers' fixed retail prices to buyers within the district allotted to them. This district will not be restricted to them, as it is quite within the option of the Ford company to appoint one or more authorized dealers in any one center.

Authorized Ford dealers are called upon to undertake not to alter, or interfere with, or add to the design or working of any Ford chassis. The company is spending upwards of £1,000,000 (five million dollars) on alterations, extensions, and improvements to its Trafford Park factory, where it contemplates the manufacture this year of 25,000 cars.

Change in Management

Since an article on farm lighting in Motor World of Aug. 20 was put in type. V. R. Evans, mentioned as farm light manager for George W. Jones, automobile dealer in Des Moines, has gone to the Delco agency at Cedar Rapids, and D. B. Howland, who came from the Delco factory, has succeeded him with the Jones concern.



SEEK CLOSER UNION WITH GAS PRODUCERS

Joint Committee Asked for Flexible Specifications—Expect Satisfactory Fuel

NEW YORK, Aug. 23—The first step for co-ordination of the automotive and the fuel industries was taken here the night of Aug. 21 at a joint meeting and dinner of representatives of national associations of the two lines, with John N. Willys, of the Willys-Overland Co., as chairman of the motor representatives. Discussions brought about statements of problems of production, both of gas and of cars, that will result in later technical studies in an effort to solve the joint problems that have arisen.

The meeting was the forerunner of what is expected to constitute a welldefined program of study and research. No such efforts previously have been made, each industry working entirely independently of the other and each having little particularized knowledge of the requirements or problems of the other. The meeting here, which was held at the University Club, resulted in pledging the support of the various organizations involved, with their technical laboratories nd equipment offered for a combined research for assuring future supplies and for utilizing this supply most efficiently and satisfactorily.

The associations participating were, for the gas producers, the American Petroleum Institution and, for the automotive industry, the Society of Automotive Industries, the National Automobile Chamber of Commerce and the Motor and Accessory Manufacturers' Association.

Accessory Manufacturers' Association.

The oil men present were Henry L.

Doherty, of Henry L. Doherty & Co., who
acted as chairman of that section; Dr.

William M. Burton of the Standard Oil
Co. of Indiana; R. B. Leonard of the
Atlantic Refining Co.; Frank Howard and
B. M. Clark of the Standard Oil Co. of
New Jersey, and R. L. Welch and C. C.

Smith, general secretary and assistant
general secretary of the petroleum
institute.

The automotive representatives were, in addition to Willys, K. W. Zimmerschied, assistant to the president of the General Motors Corp.; Coker F. Clarkson and Herbert Chase, general manager and assistant manager of the Society of Automotive Engineers; Alfred Reeves, general manager of the automobile chamber of commerce; M. L. Heminway, general manager of the accessory association; Walter C. Baker and John G. Utz, of the Standard Parts Co., and F. C. Mock of the Stromberg Motor Devices Co.

Clarkson stated that much research was yet necessary to determine fully the problems of engine combustion, but added that present information indicated a further study would enable the production of a satisfactory engine fuel by cutting deeper into the crude oil than is

at present the general and practical custom.

Fuel specifications were discussed, but speakers agreed that a fixed specification would be detrimental both to producer and consumer. A flexible specification was asked that might be changed as exigencies of the fuel supply and demand might demand. This, it was declared, would permit the automotive manufacturer to design his product in a manner that would utilize the fuel most satisfactorily.

EXCLUSIVE LEASING OF GAS TANKS DECLARED ILLEGAL

WASHINGTON, Aug. 23—The Federal Trade Commission has taken action to stop the leasing of gasoline pumps and tanks to retail dealers by oil companies on exclusive dealing leasing terms intended to stifle competition. The order to cease this practice has been served on the Standard Oil Co. (of Indiana), and prohibits the company from entering into contracts, or from continuing after four months to operate under existing contracts, which provide that dealers, as a consideration for the lease of pumps and tanks, shall only use them for the handling of gasoline and products sold by the Standard Oil Co. (of Indiana).

Under the action of the Commission, the Standard Oil Co. (of Indiana) is to report to it fully within 30 days after the four months the nature of the new contracts or arrangements that it makes with dealers.

The leasing of tanks and pumps at rentals below those warrantable to insure a reasonable profit, on the condition that they would not be used to distribute the products of competitor companies, the commission found, is an unfair method of competition in violation of law.

COLUMBIA ADDS TWO NEW MODELS TO LINE

DETROIT, Aug. 23—The Columbia Motors Co. is about to add two new models to its regular line. The new cars are a two-passenger open roadster and a four-passenger coupe. Production on the roadster will start Sept. 1, while the new coupe will be coming through by Sept. 15.

The Columbia Motors Co. is building a new factory which will permit double production and expects to be established there soon. The 1920 production schedule calls for making 12,000 cars.

Outing of B. F. Goodrich Employees

BOSTON, Aug. 23—The annual outing of the New England men and women affiliated with the B. F. Goodrich Rubber Co. took place Tuesday at Nantasket Beach. The party numbered about 500. The forenoon was spent in swimming races and the afternoon in sports for men' and women. There was a big dinner at Paragon Park followed by dancing. Fred T. Moore, manager of the New England branch, was general chairman of the event.

YEAR RUNNING HIGH FOR THE STUDEBAKER

President Erskine Predicts Large Profits—Big Production Planned for 1920

SOUTH BEND, IND., Aug. 23—New earning records, exceeding those of the year 1915, when 27.5 per cent dividends were paid on the outstanding common stock of \$30,000,000, may be made or closely approached this year by the Studebaker Corp. A. R. Erskine, the president, announced to-day that net profits, after deducting fixed charges, were more than double for the first six months of the year those for the same period in 1918. On this was based his assertion concerning the possibility of a new record for 1919.

"The units of the automobile plants under construction at South Bend will' be completed next January," he said. "Shipments of cars will be started in April, with a total of 25,000 scheduled for shipment next year, which, added to 50,000 cars scheduled by the Detroit plants, makes 75,000 cars planned for production next year, when, it is estimated, sales will exceed \$100,000,000.

"Since July 1, production and sales show substantial increases and the demand is several times greater than factory output, which, in the case of cars. has been running, and promises to continue at 4200 cars a month.

"Prices of all automobiles were increased July 1 and the net profits of the third quarter alone, after reserve for income and excess profits are taken out, are estimated at 10 per cent on the common stock. The fourth quarter should give a similar return if production is not interrupted by developments now unexpected."

Erskine, reviewing the season's production, said that output had been in full swing only since April 1, but that, despite this delayed start, the year's profits were expected to reach the estimated high mark.

Officers of Wisconsin Parts

OSHKOSH, WIS., Aug. 23—Officers elected for the reorganized Wisconsin Parts Co., formerly the E. B Hayes Machinery Co., are: President, W. F. Rockwell, until recently vice-president in charge of engineering and construction of the Torbensen Axle Co.; vice-president, J. F. Hayes, formerly president of the Hayes company; treasurer, Louis Schriber, vice-president of the Old National Bank of Oshkosh and a director of the First National Bank of Milwaukee; secretary, E. J. Dempsey.

Kellogg Increases Capital

ROCHESTER, N. Y., Aug. 22—The Kellogg Manufacturing Co. has increased its capital from \$75,000 to \$300,000 to provide for its increasing business.



PRODUCTION STARTED OF THE WILLYS FOUR

Distributers Receive the First Models—Sale to Begin In September

TOLEDO, Aug. 23—The Willys-Overland Co. will push the sale of the new Overland 4 with a national advertising campaign which, it is said, will be the largest ever staged by that company. Due to the strike, the production on the new model was greatly delayed. Finished machines are now coming through and the company is busy supplying its dealers and distributers with demonstrators. Three of the cars are participating in the transcontinental test trip of the United States Motor Transport Corps, which started at Washington July 7 and is expected to arrive Sept. 2 at San Francisco.

The company has already held one distributers' meeting at which time details regarding the marketing of the new car were taken up. Another such meeting will be held soon and complete details for the public announcement of the new model then will be given out.

Concerning the marketing of the new model, the Willys-Overland Co. has made the following announcement to its distributers:

"By the end of August it is expected that every distributer will have received three Overland 4 touring cars—one for his showroom, one to be used as a wholesale demonstrator, and one to be used as a retail demonstrator. In addition, we expect soon after to supply each distributer with one coupe, one sedan, and a chassis of the Overland 4. All of these cars are to be used for demonstration and display purposes only and are not to be delivered to any one until all dealers are supplied with cars and shipments meant for retail distribution are received.

"By Sept. 15 we expect to supply every dealer with a sample Overland 4 demonstrator. When all dealers have been supplied with demonstrators, the first national announcement of the car will be made.

"It is very important that every distributer and dealer avoid having any advertising appear in newspapers or other publications about the Overland 4 until the date of the great national announcement.

"Each distributer will be supplied immediately with two charts showing, first a bisectional view of Overland 4, with the important advantages of this car clearly set forth; second, a chassis view showing the oiling system; third, a motor view showing the details of the motor.

"Publicity featuring the Overland 4 will appear in the newspapers the latter part of July and will continue until the time of the big announcement. This publicity will be sent out by the factory, and will be written with a view to developing the interest and curiosity of the public, and we particularly urge that every distributer and dealer co-operate with this publicity instead of giving out detailed advance publicity himself.

"A preliminary stock of Overland 4 parts will be shipped to each distributer so that prior to the arrival of the sample Overland 4 in his establishment he will be equipped with a parts stock."

ANOTHER FORD FACTORY GOING UP IN MICHIGAN

MOUNT CLEMENS, MICH., Aug. 23—A \$500,000 factory will be built here by Henry Ford for the manufacture of automobile and tractor parts. It will get its power from the Clinton River. A concrete dam, 125 ft. in length, will be built. When complete the new plant will employ between 300 and 400 men. The Ford company will also build a number of homes for its workers.

Allen Production Up to 15 Daily

COLUMBUS, OHIO, Aug. 23—Production at the Allen Motor Co. has reached 15 daily and it is expected to increase to 25 per day within two weeks. Additions are being made to the working force of the factory and it is expected to still further increase the daily output.

PUSH ORGANIZATION OF NEW ASSOCIATION

Louisiana - Mississippi League Makes Sixteen More Branches —Opens Bureaus

NEW ORLEANS, LA., Aug. 22—Arrangements were completed for the organization of sixteen branches, in as many towns, of the Louisiana-Mississippi Automotive Trades Association, during the last week of this month. Secretary C. U. McDowell left New Orleans Aug. 17 on a trip which will take him to every one of the sixteen towns and through virtually all of northern Louisiana and central and northern Mississippi.

Among the towns where branches now are being formed are Ruston and Monroe, La., and Vicksburg, Jackson, Yazoo City, Winona, West Point, Columbus, Aberdeen, Amory Tupelo, Corinth and Meridian, all in Mississippi. While in Jackson a meeting of the dealers of that section will be held at which the full program for the second convention of the bi-state association, Oct. 9-10, will be completed.

The various bureaus of the association have just been put under way at the New Orleans headquarters. The information bureau is compiling a list of all dealers in automotive vehicles and equipment in Louisiana and Mississippi, and providing data covering the development and progress of the industry. The credit bureau is filing the standings of all members in such a manner that they are readily accessible and up to date for exchange between members. Still another bureau is handling interchanges of opinion, sales aids, advertising suggestions and other features of special interest to the dealer and jobber.

Another bureau is working on a system to check thefts. Motorists losing a car to thieves are requested to report it at once to this bureau, which will supply every garage in the two states immediately with number and full description of the stolen car. This service is free to owners as well as to dealers.



Staff of the Eldridge Buick Co., Seattle, and

COMING EVENTS

Races, Contests and Tours	Shows
Uniontown, Pa Sept. 1 Speedway. Sheepshead Bay, N. Y. Sept. 20 Speedway. Allentown, Pa Sept. 27 Dirt track event. Trenton, N. J Oct. 4 Dirt track event. Cincinnati, O Oct. 11 Speedway. Danbury, Conn Oct. 11 Dirt track event.	Harrisburg, PaAug. 26-29Car, truck, tractor and equipment show in connection with Grangers' Picnic at Williams Grove, Harrisburg Motor Dealers' Assn.
Paris, FranceJuly, 1920Grand Prix Race, Sporting Commission, Automobile Club of France.	Minnesota
Meetings	B. Orman, Manager. Greenville, S. CSept. 1-6Agricultural implements and Tractors. F. M. Burnett,
New York CitySept. 3Annual Meeting of the Automotive Service Assn. of New York, N. A. C. C. Rooms. 7 E. 42d Street.	Cincinnati, OSept. 13-20Ninth Annual, Music Hall, Cincin n a ti Automobile Dealers' Assn., H. K.
ChicagoSept. 8-9Industrial Conference, Illinois Mfrs. Assn., Congress Hotel.	Springfield, MassSept. 15-20Eastern States Exposition. J. O. Simpson, General Man-
Buffalo, N. YSept. 11-12Annual Credit Manufacturers Convention, Motor & Accessory Mfrs. Assn., Hotel Lafayette.	new York CitySept. 24-Oct. 3. New York Electrical Exposition. Electric Cars, Trucks
Philadelphia, PaSept. 22-24Annual Convention, National Association of Purchasing Agents, Bellevue-Stratford.	a n d Equipment, Grand Central Palace. Detroit, MichOct. 6-11Closed Cars: Detroit Dealers'
Denver, ColOct. 1Directors' Meeting, National Automobile Dealers' Assn.	Assn., Arena Gardens. Pittsburgh, PaOct. 11-18 Fall Show.
ClevelandOct. 1-4Eighth Annual Safety Congress of National Safety Council	Farm Tractor & Implement Exchange, Grand Central Palace.
Jackson, MissOct. 9-10Second Annual Convention, Louisiana-Mississippi Assn. Atlantic City, N. JOct. 14-17Twenty-fifth Annual Conven-	Ft. Dodge, IaOctoberFall Motor Show, District Fair Grounds.
tion, Marlborough - Blen- heim, National Hardware Association of the United	Chicago, Ill
States. Washington, D. COct. 29First Annual Labor Conference provided by Peace	modore. New York, N. YJan. 3-10Grand Central Palace, Na- tional Automobile Cham-
Chicago, Ill	ber of Commerce, S. A. Miles, Manager. New York CityJan. 3-10Eighth Coast Artillery Ar-
DetroitNov. 7-8Meeting of National Assn. of Motor Truck Sales Mgrs., Hotel Statler.	mory, Commercial Cars and Accessories. Chicago, IllJan. 24-31Coliseum. Cars: Drexel Pa-
London, EngNovemberRoad Transport Congress and Exhibition.	vilion: Trucks, National Automobile Chamber of Commerce, S. A. Miles,
ClevelandDec. 3-5Ohio Automobile Trade Assn., annual convention. Louisville, KyFeb. 9-13Seventeenth Annual convention.	Manager. ChicagoJan. 24-31International Amphitheater, Commercial Cars and Ac-
tion American Road Build- ers' Assn.: Tenth American Good Roads Congress and Eleventh National Good	cessories. Deadwood, S. D
Roads Show. San Francisco, CalMay 15-20Seventh Annual Foreign Trade Convention.	win, Mgr. Kansas Citv, MoFebruaryFifth Annual Tractor Show, Kansas City Tractor Club, Guy H. Hall, Manager.
Foreign Shows	Wichita, KanFeb. 9-1Tractor and Farm Machin- ery, Forum, Wichita Thresher-Tractor Club.
Toronto, CanAug. 23-Oct. 6Cars. Trucks and Tractors. Airplanes and Motor Boats in conjunction with Cana-	Automotive Shows at Fairs
Ottawa, OntSept. 6-16Central Canada Exhibition. Paris, FranceOct. 15Grand Palais International Automobile Manufacturers'	Des Moines, Ia. Aug. 20-29 Machinery Hall. Columbus. O. Aug. 26-29 Cars and Tractors. E. V. Walbor. Manager. Rockford. Ill. Aug. 26-28 County Fair.
Congress. London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers & Trades.	Detroit
Christchurch, N. ZNovemberFirst National Motor. Glasgow. ScotlandJanuaryScottish Motor Exhibition. Manchester, EngFebruaryNorth of England Motor Ex-	Lincoln, Neb
hibition. London, EngMarchMotor Boat, Marine and Sta-	Hartford, ConnSent. 1-5Connecticut Fair Assn. PhiladelphiaSept. 1-5Tractor demonstration and
tionary Engine Exhibition. London, EngApril or MayCommercial Vehicles Exhibition, Olympia.	truck show, Philadelphia County Fair. Rochester, N. YSept. 1-6Automobile Club of Roches- ter. E. F. Edwards, Man-
Tractor Demonstrations	ter. F. Edwards, Man- ager. Indianapolis. IndSept. 1-6Nineteenth Annual in con-
Los Angeles, CalSeptemberRegional Tractor Demonstration under the auspices	nection with Indiana State Fair Spokane, WashSept. 1-6Cars. Trucks and Tractors.
of the National Implement & Vehicle Assn. Streator, IllSept. 9-12Northern Illinois Tractor & Truck Assn. W. S. Peter-	Milwaukee, WisSept. 8-13Milwaukee Antomobile Dealers. Inc. Bart J. Ruddle, Manager.
man, Manager, Lincoln, EngSept. 24-27Society of Motor Mnfrs. &	Topeka, KanSept. 8-13Cars. Trucks and Tractors. Motor Hall and Machinery Fleid.
Traders, Ltd. Lincoln, EngSept. 24-27Exhibition of Tractors and Agricultural Vehicles, in connection with the tractor	Huron, S. DSept. 8-13Cars. Trucks, Tractors, Automotive Equipment. C. N. McIlvaine, Mgr.
connection with the tractor trials. Ottawa, OntOct. 14-16Tractor and Farm Machin-	Helena, MontSept. 8-13Cars, Trucks and Tractors, Montana State Fair.
ery. Experimental and Booth Farms, Inter-Pro- vincial Plowing Match and Tractor Demonstration.	Svracuse. N. Y



CHANGES In the Trade

Fred Weliman has been appointed advertising manager of the National Motor Car Vehicle Corp., Indianapolis, to succeed Lucius French, who resigned to become secretary of the Western Oil Refining Co., also of Indianapolis. Wellman has been associated with Carl G. Fisher of Prest-O-Lite for the last four or five years. He was also connected with the Olds Motor Works for a year prior to the return of W. C. Durant to control in the General Motors Corp.

Norman Hamilton, Toronto, Ont., who has for some time been in charge of the tractor department of the Renfrew Machinery Co., distributers for this territory of the Happy Farmer tractor, has been appointed sales manager for Eastern Canada for the Advance-Rumely Co., and has already entered upon his new duties. The Advance-Rumely Co. has for several years owned a factory in Toronto, and will eventually manufacture here for its Canadian trade.

- A. G. Underwood, manager of the Milwaukee branch of the B. F. Goodrich Rubber Co., has been promoted to sales manager of the Diamond Rubber Co. division, at the general offices in Akron. Prior to coming to Milwaukee, Mr. Underwood was Pacific Coast manager at Seattle, Wash. His successor at Milwaukee has not been appointed.
- C. P. Turner, formerly with the advertising department of the Studebaker Co., Detroit, has been appointed assistant sales manager of the Dixon Motors, Ltd., Ottawa, distributers of the Studebaker, Maxwell, Chalmers and Briscoe passenger cars and Denby
- H. E. Burrows, Harriston, Can., of the International Harvester Co. agency in this district, has been given charge of the motor truck business for Eastern Canada, and will make his headquarters at Toronto.
- C. N. Dwyer, for several years Canadian supervisor of service for the Studebaker Co., has been appointed general supervisor in charge of service for the Cleveland Tractor Co. of Canada.

Charles A. Plumley, until recently commissioner of taxes in Vermont, has joined the legal department of the Firestone Tire & Rubber Co., Akron. He will handle all questions of taxation and will act as assistant to Bernard M. Robinson, the plant attorney.

Charles W. McKay has taken charge of

the appraisal division of L. V. Estes, Inc., Chicago, industrial engineers

- H. C. Buffington will leave the Minneapolis Steel & Machinery Co. on Sept. 1 to become chief engineer of the Holt Manufacturing Co., Peoria, III.
- A. R. Davis, president of the Studebaker Sales Co., 2020 Euclid Avenue, Cleveland, has sold his interest in that concern.
- R. E. Wedekind, former Chevrolet branch manager in Cleveland, is now district sales

Forsakes the Tractor Field to Sell Cars



W. S. Roberts

Veteran of tractor merchandising as representative in St. Louis of the J. I. Case T. M. Co., who is one of the organizers and officers of the Vesper Motors Co., Kansas City, which will distribute Reo cars and trucks in western Missouri and eastern Kansas. The Vesper company is now doing business at full swing in its temporary location, eighth floor of the Traders' building, Nineteenth and Campbell streets, and work has already begun on the new permanent home at Nineteenth and McGee streets, which it is hoped to occupy Nov. 1. The new concern reports the outlook very optimistic and already has completed its sales, office, and warehouse organization and is now at work on the dealers' organization.

manager of the F. E. Stuyvesant Motor Co., 2010 Euclid Avenue, Cleveland. The Stuy-vesant Company is distributer in northern Ohio for the Hudson and Essex motor cars.

Floyd Showaiter, a former army aviator, has resigned as business manager of the Essington School of Aviation to become sales manager of the Curtiss Eastern Airplane Corp., Philadelphia.

D. V. Halcomb, formerly field sales manager of the John Lauson Mfg. Co., has been made general sales manager of General Tractors. Inc.

Dudley H. Luce has quit the insurance business and has become distributer for central and northern Michigan for the Detroit Weatherproof Body Co., Pontiac, Mich.

Eylar M. Filmore, assistant branch manager of the Ford Motor Co., Los Angeles branch, has been made manager of the Cleveland branch of the Ford Company.

Jack Hickey has been appointed manager of the South Shore Auto Co., Gary, Ind., for this territory, distributer of Hudson, Essex and Dort cars.

L. B. Lambert, formerly with the Times Square Auto Supply Co., has been appointed sales manager of the Elco Mig. Co., Wichita,

George A. Ault, who during the first two years of the war was connected with the Curtiss Aeroplane & Motor Corp., and during the latter stages of the war with the Canadian Aeroplane Co., Toronto, has been appointed material supervisor in the production division of the Grant Motor Car Corp., Cleveland.

R. B. Bowman, for a number of years western representative of the White Co. and more recently connected with the Denby Motor Truck Co., has been appointed central sales manager of the Standard Motor Truck Co., Detroit.

H. G. Pederson, formerly with the Wright-Martin Aircraft Corp., has joined the General Motors of Canada, Ltd., Walkerville, Ont. He will be in the production department.

Harry C. Brownless has been appointed district manager for the McGraw Tire & Rubber Co. with headquarters at the new Detroit branch. He took up his new duties on July 15 after spending 9 years with the Goodyear organization.

G. F. Barnewall, formerly with the Chalmers Motor Co. of Canada, and during the war engaged on production of Liberty engines at the Aluminum Castings Co. plant in Detroit, has become manager of the Barney Sales Co., Detroit, distributer in Michigan and Northern Ohio for Blue Streak spark plugs and other devices.

Automobile show in connec-

COMING EVENTS

(Continued from page 47)

Hutchinson, KanSept.	13-20Cars, Trucks and Tractors.
Sioux City, IaSept.	14-20 Cars, Trucks and Tractors.
Yakima, WashSept.	15-20Cars, Trucks and Tractors.
Springfield, MassSept.	15-20Cars, Trucks and Tractors O. A. Nash, Asst. Gen. Manager.
Billings, MontSept.	16-19 Cars, Trucks and Tractors.
Memphis, TennSept.	20-27Cars, Trucks and Tractors.
Oklahoma City, OklaSept.	20-27Cars, Trucks and Tractors J. S. Malone, General Manager.
Pueblo, ColSept.	22-27Cars, Trucks and Tractors. J. L. Beaman, Manager.
Salem, OreSept.	22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn., M. O. Wilkins, Mgr.
Allentows. PaSept.	22-27Lehigh County Agricultural Assa.

Waterloo, lowaSept. 22-28Automobile show, in connec-
tion with Waterloo Dairy
Cattle Congress; Black
Hawk County Motor Trades
Bureau, G. V. Orr, Secre-
tary.
Kansas City, KanSept. 24-Oct. 4. Cars, Trucks and Tractors.
Muskogee, OklaSept. 29-Oct. 4. Cars, Trucks and Tractors.
Meridian, MissSept. 29-Oct. 4. Cars and Tractors. A. H.
George, General Manager.
Chattanooga, TennSept. 29-Oct. 4 Chattanooga Auto Dealers
Assn.
Brockton, MassSept. 30-Oct. 3 Cars.
Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn.
Columbia, S. COctoberColumbia Automobile Deai-
ers' Assn.
Northampton, MassOct. 1, 2, 8Three-County Fair. S. B.
Hickman, Mgr.
Dallas, TexOct. 6-19Cars, Trucks and Tractors
Texas State Fair.
Raleigh, N. COct. 20-25Cars, Trucks and Tractors.
Shreveport. LaOct. 22-27Cars, Trucks and Tractors.
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Jacksonville, FlaNov. 22-29Florida State Fair and Ex-
position. B. K. Hanafourde
Mgr.

Passenger Cars

Passenger Cars

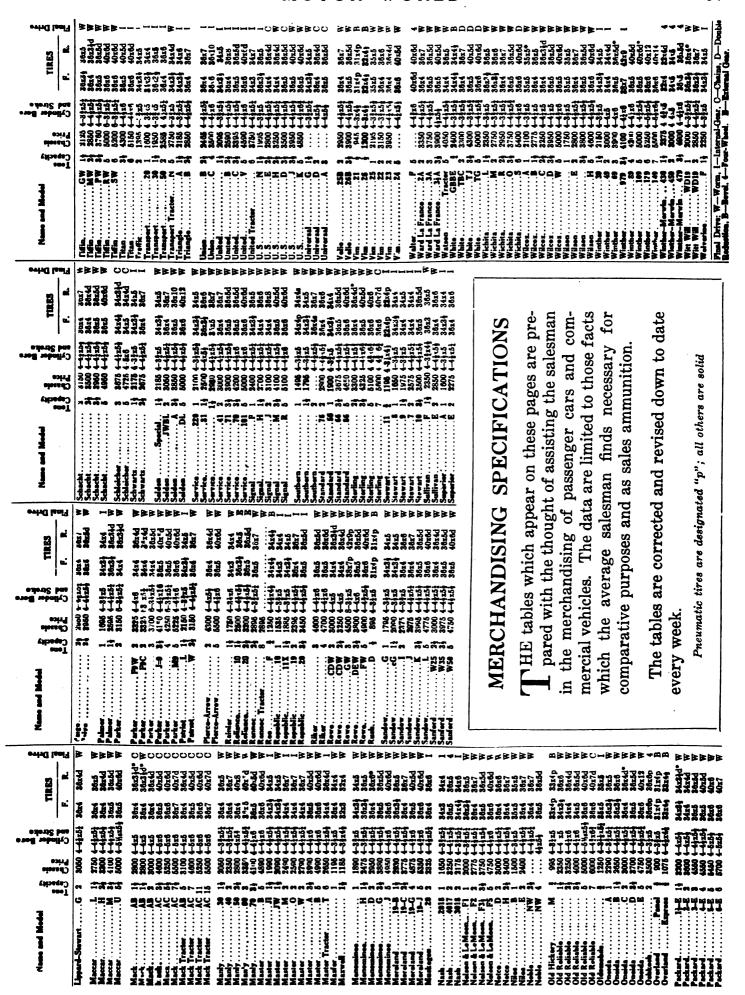
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"W.Lnrd" Ward Leonard, "3S" straight Side. "QD" ABBREVIATIONS:--"A.Kent" Atwater Kent, "A-Lite" Auto-Lite, "Conn" Connecticut, "G & D" Gray & Davis, "Eisman" Eisemann, "L-N" Leoce-Noville, "N.E." NorthEast, "Waths" Westinghouse Quick Detachable Reversible. NOTE,--30x3f means that the rear tires are 30x3f and the front are smaller. \$31x4 C tires on Sedan. **Trucks**

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Farm Tractors

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SEALERS, JOBBERS AND GARAGE.

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The experience of over 240 manufacturers who equip their products at their factories with Champion Spark Plugs, together with the experience of millions

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UTILITY Foot Pedals for Fords

TILITY Pedals for Fords have made liberal profits for dealers all summer.

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They should sell—and sell fast—this fall and winter, as one of the most popular of a complete line of UTILITY Automotive Necessities.

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For highest spark plug efficiency—



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1/2 in. Long. 1/2 in. Standard. 3/4 in. Standard. 1/8 in. Long. 1/8 in. Standard. Special Tractor \$2.00 each.

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On passenger cars, trucks, tractors and stationary engines the country over, the REX has qualified as a most durable and dependable spark plug, capable of producing at all times a hot, sure spark.

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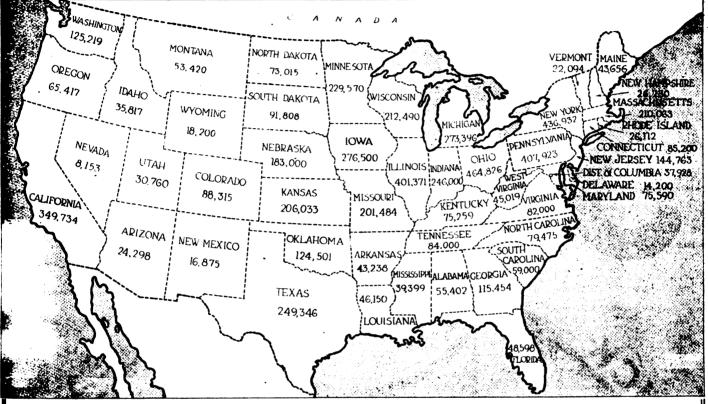
New York City

San Francisco

Kansas City

Philadelphia

6,353,233 Cars and Trucks in Use in United States



Distribution of cars and trucks in the United States, all duplicates being deducted

 \P This astounding number of vehicles means a tremendous business for jobbers, dealers and the men who render service.

¶ On the accompanying map is shown the number of registrations in each of the states during the first six months of 1919.

I Every man who is interested in the manufacture and sale of automotive equipment should consider that there is cause for exceeding optimism and should begin to plan now for the best and biggest season of winter business that the industry has ever known.

I The jobbers and dealers who do the biggest business during the coming winter, and show the greatest percentages of volume and profit gain, are the ones who will plan intelligently—and then work hard in the carrying out of their intelligent plans.

¶ Dealers and jobbers should get ready for the most profitable winter in their career.

TAMINUM

SHANNING TO SERVICE OF THE SERVICE O

The smooth, accurate surface of LAMINATED SHIMS contribute largely to bearing efficiency. The ease with which LAMINATED SHIMS are made, means the saving of much time and no little labor. These are the reasons why LAMINUM has displaced solid and looseleaf shims.

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Shims entirely of LAMINUM meet every requirement,

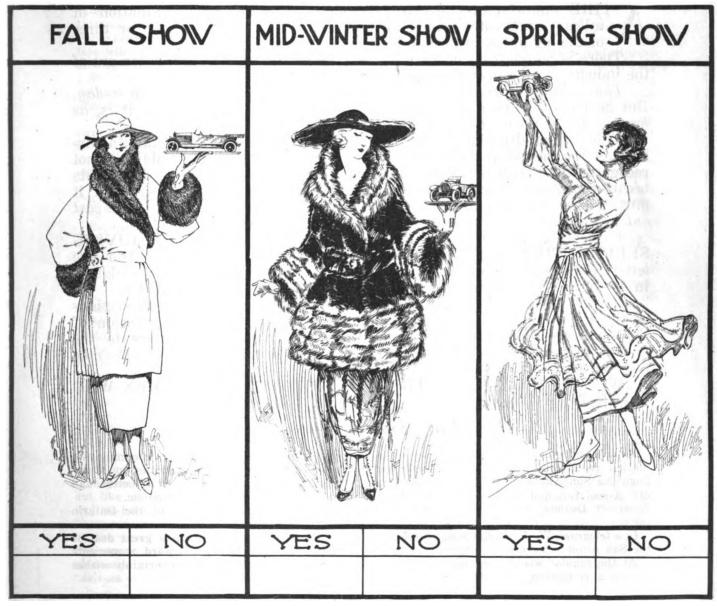


LAMINUM with Babbitt Facing gives an all-Babbitt bearing. Vol. LX

New York, U. S. A., Wednesday, September 3, 1919

No. 10

The Polls Are Open



How do you vote on the show question, for one, two or all three dates? Send us your ballot, with your firm name and address attached.

Digitized by

Why Wait?

NO MORE TIRE

Manufacturers admit eagerness to put industry on a businesslike basis, but the men who can lead the way have not yet declared themselves. In the meantime, dealers and dealers' associations are urging immediate action.

A TIRE manufacturer declared within the week that elimination of mileage guarantees could be made effective at once if two or three of the big producers would lead the way.

There is no question in his mind but the guarantee will be written out of

the industry in the near future.

This manufacturer would like to abandon his guarantee policy to-day. But he feels that he must stand by the system, unsatisfactory as it is, as

long as the majority of the trade does the same.

This is the situation in the entire American field of tire manufacturing. A recognized unbusinesslike policy, established when the public did not recognize the greatness of the automobile industry as it does to-day, exists because everyone concerned is waiting for the other fellow to say that it must go the way of many other unsuccessful experiments tried out and cast out in the past.

Evidence is abundant that THE MANUFACTURERS ARE GIVING SERIOUS THOUGHT TO THE GUARANTEE NUISANCE. And the letters and telegrams of dealers and dealers' associations are accumulating in strength which ultimately will crystallize this thought into action.

During the past week word has come to Motor World from all sections of the United States, and from Canada, urging immediate elimination of the guarantee. And dealers have opened a campaign of letters to the makers of the tires they sell. There is no doubt as to the attitude of the men who sell tires.

WHEN WILL THIS ATTITUDE BE HEEDED BY THE MEN WHO

MAKE TIRES?

What Associations Say

Typical endorsements of tire guarantee elimination received during the past week were from the San Antonio, Tex., Automobile Dealers' Association and the Retail Automobile and Accessory Dealers' Association of London, Ontario.

In a telegram, W. A. Williamson, president of the San Antonio association, says:

At the regular weekly meeting of this association a resolution was adopted commending and endorsing the action relative to eliminating tire mileage guarantees as advocated by Motor World, feeling it would result in better and cheaper tires for the motoring public.

Wilfred Hodgins, president of the Ontario

Association, writes:

The writer is reading with a great deal of interest another of your forward movements (no more tire guarantees) and certainly wishes you every success in your venture.

GUARANTEES

We believe that this matter should be taken up by the dealers all over Canada as well as the United States and with this point in view the writer has taken this matter up with the secretary of our automobile association, asking him to help push the good work along.

The Excel Rubber Co., Wadsworth, Ohio, writes:

We have been reading your recent editorials with reference to tire guarantees with much interest, and we are pleased that you have taken this step, as we are sure it is for the better.

We believe the elimination of all tire guarantees will bring a more settled condition among all tire dealers.

We believe absolutely in the policy you have outlined and that the whole industry should be organized to do away with this nuisance.

We are heartily in favor of the idea of selling

tires on merit, and as soon as the larger manufacturers adopt this policy, we will follow.

Dealers Write

Copies of letters from dealers to manufacturers of the tires they sell include the following:

G. Norman Baughman Co., jobber, Tampa, Fla., to the Fisk Rubber Co.:

We are heartily in sympathy with the strong fight being put up by Motor World in regard to eliminating guaranteed tires, and we hope that your good company will support the proposition. We who have used Fisk tires for years

know they sell on their merit, not on any longtime guarantee. We know when it comes to stack up your tires against the average tires, true merit to be the judge, your tire will stand out like a Stetson hat with the dollar brands, and we know that you will come to no ill effect if we can get the others to do it, and that will be the greatest step the rubber industry has ever made toward putting tires on a higher plane and handling them on the same business basis as other first-class merchandise.

We note in this week's Motor World a number of the rubber companies, such as Goodyear. are advocating this adoption. We hope that next week we will note the name of Fisk among the list of those advocating merit and not the much abused guarantee.

Save Dealers Abuse

L. Snyder, Mannington, W. Va., to the Goodyear Tire & Rubber Co.:

I have been reading Motor World about taking the guarantee from tires. For my part, I think it the best move you tire manufacturers could make. It is annoying to us dealers. We don't send in half the tires we are asked to for adjustment, for we know there is none coming, and if tires were sold on their merits the people would take better care of them and

> save us dealers a lot of trouble and abuse.

> Snyder sent similar letters to the Kelly-Springand Pennsylvania companies, which he represents.

Adjustments Costly

Letters from dealers to Motor World continue to pour in daily. A few of them follow:

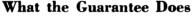
Palestine Hardware Co., Palestine, Tex.:

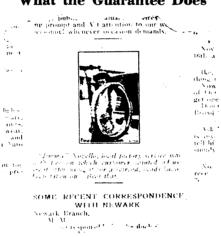
Having read Motor World for quite a while, I am always interested in the different reforms it advocates. But in the recent issue I read enthusiastically of the proposition to

remove guarantees on automobile tires, and I surely hope you succeed.

We have handled casings since 1909 and at times it costs us money and at times it costs us customers. It is the worst abused and easiest evaded of any promise ever made. The two main and very nearly 90 per cent of the trouble lies in reckless driving and insufficient air pressure.

I could write you a history on experiences, as others can do, but I just want to commend





This is a "wallop" at Old Man Guarantee right from headquarters—a reprint from the "Sterling Spur."



NO MORE TIRE GUARANTEES

you on your start and I hope successful ending.

Thomas Hughes, Marion, O.:

I am very much interested in your campaign in regard to doing away with the guarantee on tires. This is what I have always hoped and prayed for. I think we would have better tires, better dealers, better satisfied customers and better manufacturers. I could never see anything in the guarantee; it only makes trouble all round.

Word from the (Tire) Front

Henry J. Zele, Torrington, Conn.:

Kaiser Bill guaranteed the German people that his army would get to Paris by Sept. 1.

It was a good army, as most tires are good tires, but Von Kluck drove recklessly, and it soon went to the bad. A reliner (Hindenburg) was put in and it ran a good many miles after that, but gave out completely at the Marne.

Results: The Kaiser (manufacturer) is in a mess; Von Kluck and Hindenburg (middlemen) are in a mess, and the German people (consumers) are very much in a mess.

Brooklyn and Chicago

Charles Scharff's Sons, Brooklyn, N. Y.:

We think that it is about time that something must be done. We handle ten different makes of tires, all good ones—Ajax, Firestone, Fisk, Goodrich, Kelly-Springfield, Michelin, Miller, Sterling and United States. All these tires are good and there should be no guarantee of mileage. It sometimes almost brings the dealer and customer to blows. Cut it out, we say.

Benton's Tire Shop, Chicago, Ill.:

I am heartily in favor of this move as I have been in the automobile tire business ever since the inception of the automobile, and I never could see any good reason for a tire guarantee. As a matter of fact, I believe it does more to make honest men dishonest than anything else.

Pure Camouflage

Philip A. Hagel, West Long Branch, N. J.:

The writer has read with interest your editorials on tire guarantees. I have been using and handling tires as chauffeur and dealer since 1900, and the mileage guarantee is a camouflage for the reckless speed maniac whose car is out of line to get something for nothing.

The best guarantee makers can give is "Free from defects and a square deal without any arguments." Also "No tires at factory cost to an official of a company that buys mechanical rub ber goods from the same company."

Smith's Tire Spot, Detroit, Mich.:

I am for tire guarantees, and for an adjustment of the tire business to give the dealer a more equitable deal. You said in your first cditorial that a tire is either a good tire or it isn't. This, to my mind, is just as important for a dealer in the first place to determine, and is entitled to just as much consideration as a builder would put into the foundation of a house.

Few men if any can tell whether a tire is good or not by looking at a section. He has to try it and invariably he does so at the expense of the consumer. I figure any fool can sell a man once—my problem the year around is to keep my customers sold all the time.

Fair Play for Dealers

How can this be done? It surely is a prob-lem at the present time. The solution is entirely in the hands of the larger companies, and I am firmly of the opinion that if the suggestions I will offer later are carried out, they will be the means not only of totally eliminating the guarantee nonsense but putting a good many rubbishy, so-called tire manufacturers out of business. It is a well known fact that at the present time a dealer cannot secure all the tires he needs. For the past six months I have handled a cord tire that I believe ranks second to none manufactured to-day. It is undoubtedly scientifically constructed from bead to tread; it is so easy to sell that were it put in a slot machine, a man needing a tire would look through the glass door, put his money in the slot on its appearance alone.

The Dealer's Troubles

These tires are sold months before they come off the molds. Why? The answer is not hard to find. The consumer has begun to realize that manufacturers have a great tendency nowadays to undertire cars. A customer of mine took delivery recently of a seven-passenger car weighing well over 3000 lb., which was equipped with 32x4 fabric tires. Before he had it five weeks he had all tires off at least once and his tubes were utterly ruined. The solution to this man's problem was of course a set of $33x4\frac{1}{2}$ cords, as he had plenty of fender clearance. I happened to have three in stock, and fitted them immediately and lent him in the meantime a $33x4\frac{1}{2}$ fabric.

My customer very patiently waited for five weeks for another tire, and as I didn't produce it, as I was told they couldn't spare one. I finally lost a good customer. The day of the cheap fabric tire has absolutely gone. One made by a reputable concern will give mileage on

NO MORE TIRE GUARANTEES

Write to the manufacturer of

the tire you sell, and send us

a copy of the letter you write.

light cars, but cord tires are the only thing one can recommend with confidence for heavy cars. Now, where are we going to get them? Hundreds of manufacturers are making them, but if we are going to stand back of the tire, who's going to stand back of us—the manufacturer who is here to-day and gone to-morrow? Positively no. If we are going to do away with the guarantee we must stand back of the tire ourselves, and see that the consumer does get value for his money, but only by dealing with reputable concerns who really are producing the goods can we ever hope to stay in business. Personally I would rather stand back of a tire that has been stamped blemished, that was manufactured by a reputable concern than offer the guarantee stuff over a "What is it?"

As I said in the previous part of my letter, the whole solution is entirely in the hands of the larger manufacturers, or perhaps I better say the "Big Four," although as far as I am concerned, and in view of the fact that they have apparently shown great interest in the solu-

tion of the guarantee business, the United States Rubber Co. and the Goodyear Tire & Rubber Co. are two companies that can do it, as follows:

Salesmen vs. Dealers

These companies keep a large force of salesmen on the road drumming up orders for their goods, which would be sold anyway whether they called or not, because they have created a great demand for their products. In view of the fact that it costs just twice as much to operate a first-class service station to handle their goods as it did before the war, these commissions given the salesmen could easily be diverted by the companies to legitimate dealers, who would derive as much out of a sale then as they would in handling a less reputable tire. At the same time it would greatly tend toward putting the bad tires off the market.

I don't believe there is a dealer in the United States that won't agree with me when I say that the present trade discounts on high-grade tires are totally inadequate, in comparison to the discounts given dealers handling good brands of merchandise in other lines.

Elm Tree Auto Supply Co., Inc., Medina. Albion and Brockport, N. Y.:

We have been following your editorials removing tire guarantees and wish to add our endorsement of the idea of giving up tire adjustments. Many of our customers are very

careful drivers, and we are of the opinion that they suffer and help pay for the tires used by careless drivers.

A Dealer's Challenge

If tire guarantees are removed, it looks to us like cheaper tires for the consumer, as it would do away with a very expensive branch of the tire industry. As soon as any standard make of tire comes forward and removes the guarantee we stand ready to give a good-sized order to that company to help show that this policy is the right thing at the right time.

Graham & Seale, Lebanon, Tenn.:

We have read with more than usual interest the articles urging eliminating the guarantee

from all automobile tires.

We have never had a proposition put up to us which has appealed to us so strongly as this, and we do not think there is any more justice in a factory having to guarantee a tire for so many miles than it is for a factory to have to guarantee a hat, a suit of

clothes, or a pair of shoes for any certain length of time.

We do not know of a single accessory house that would not be glad to have this done, and out of more than 1,000 customers we have, we do not believe there are more than twelve who would not be glad to see this guarantee withdrawn also.

Would Reduce Prices

As matters now stand, it requires more time and costs more money to make an adjustment on tires than it does to sell them, and this feature is the bane of the automobile business, and—while it costs us money to have to receive and handle adjustments, we feel quite sure it costs the manufacturer ten times as much as it does us, for if there ever was anything that is abused to the limit it is this tire adjustment business. There is not one person in fifty who has any idea how far he has driven his tires, and while he may be honest about it, we know they are badly off in most cases.

We believe that by cutting off the adjustment feature the tires could be reduced 20 to 25 per cent, and the manufacturer could make more money then than now, having to stand for every adjustment.

The original of this was mailed to the following tire companies: Goodyear, Firestone, Fisk, Miller, Portage, and Goodrich, whose products Graham & Seale handle.

WHEN SHOULD THE

Makers and Merchants of Automotive Products, Rating the Problem as Important in the Future of the Industry, Offer Vital Suggestions—Fall Displays Have Substantial, Though Minority Support, and Both Producers and Distributers Are Found Advocating Timing of New Models With the Big Show Dates

OW can the automobile show be put to work, with all its possibilities, for the industry in America?

Makers and distributers of cars, trucks and parts are turning the problem over in their minds. They are concerned over show dates, and their synchronization, or lack of synchronization, with the production of new models. They are debating, weighing one against the other, the fall show, the midwinter show, the spring show, and a suggestion of two shows a year.

The discussion has dismissed a minority suggestion that shows are unnecessary. This is a sign of farsightedness,

of thought beyond the present, when demand far outruns supply. It is an evidence of realization that leaner years are coming, when the industry will need the exploitation of shows planned and conducted to utilize to the full the promotion powers which they pos-

The suggestion of a number of New York dealers that the country's big expositions, the so-called national shows in New York and Chicago, are ill-timed in midwinter, with the retort of other metropolitan car merchants that a cold-weather display is essential to energizing buying in the spring, has brought out views of motor-vehicle builders and distributers in all sections of the country. It has started

an inquiry into what is, which bids fair to lead to a rearrangement of show dates along with other reforms of the back-to-business period following the war.

As might be expected, dealers largely discuss the show from the local standpoint. Their interest is in selling cars in their own territories. And geography and climatic conditions naturally figure in their conclusions. Manufacturers, on the other hand, see the industry through a mental telescope that sweeps the horizon of the entire country. They speak from the viewpoint of nation-wide promotion and merchandising of the motor car.

ANOTHER county has been heard from—yes, a score of them and half a dozen states for good measure—in the "election" of show dates.

And the "votes" indicate that the automotive industry is doing some serious thinking about the show problem.

The seeds sown by Sholes, Poertner and Larson, respectively Studebaker, National and Scripps-Booth and Oldsmobile representatives in New York, and advocates of fall displays, have fallen on fertile ground.

The present show program does not suit everybody. Manufacturers, distributers and dealers have some very definite opinions on the subject views that are worthy of serious consideration by both the manufacturing and merchandising divisions of the industry.

The industry is entering upon a new day. Must there be with it a re-birth of its offspring, the show?

What does your town think? What do you think?

It is significant that many automobile men, in the manufacturing as well as merchandising fields, find fault with the gap between late summer productions of new models and midwinter exhibitions of these models as SOMETHING NEW. The average citizen buying admission to a show expects to see something he has not seen before—and he does not look for it in the decorations of the exposition hall. This being so, some opinions hold the industry is not quite frank with the public when it puts on display as the last word in automotive design models which have been ON THE STREETS since the previous August.

On the merchandising side of the industry it is not surprising to find Boston stand-

SHOWS BE HELD?

ing by the March show—an exposition that has become an institution in the Bay State, and all New England, for that matter—breathing into the Down Easter's winterchilled spirit the longing for the open country. Nor is it contrary to expectation that a voice from Atlanta, speaking for the South, should favor the fall show, when sales may be made with the new models fresh from the factory and a season just ahead that knows no weather prohibitive of touring. Milwaukee naturally upholds January as its principal show date—because of its success in seasons past; Hartford stands pat on its February date; and Philadelphia, no doubt because its sales cover a cosmopolitan territory, offers a diversified opinion, with advocates of fall, winter and spring shows.

The Manufacturers' Views

Manufacturers, who must leave local shows largely to the discretion of their distributers, and who speak from the standpoint of the New York and Chicago expositions, controlled this year by the National Automobile Chamber of Commerce rather than the dealers in those cities, have contributed to an interesting discussion.

Makers of the Westcott, Cole and Hupmobile, and executives of the Standard Parts Co., are found among advocates of big midwinter shows, with January dates essential to introducing the entire show season running well on into the spring. Producers of the Holmes hold to the winter dates, too, but are emphatic in favor of withholding production of new models until that time. The Dorris is for a fall show, if only one is to be held; or better yet, for spring and fall shows.

Winter Show Leads

Statements of some of the producers, which are vital in a discussion of this sort, because the manufacturers must always take an active part in guiding shows in the larger distribution centers, are given below:

HOLMES Automobile Co., by W. H. Gilmore, sales department.—It is our opinion that automobile shows should be held in the early winter, as this seems to us the time the automobile business needs stimulating. We also think manufacturers should wait until this time before bringing out new models.

COLE Motor Car Co., by J. E. Roberts, general sales manager.—It is the writer's opinion that the two national shows, held in January, are held at the proper time. These shows stimulate early spring buying and are very good, I believe, for the trade in general. I wish to state, however, that the balance of the smaller shows are not held during the early part of the year and I am not at all in favor of these as they usually come so late that they obstruct the purpose for which they are held.

WESTCOTT Motor Car Co., by P. W. Runyan, assistant sales manager.—Personally, I feel that there might be some slight advantage in a fall show in so far as the sale of closed cars is concerned, but it does not occur to me that the average open car buyer is quite as much enthused about buying a new car so near the close of the driving season, at least as far as real pleasure is concerned, as he will be after the holidays are over and he begins to think about spring. From the retail standpoint, undoubtedly the New York show is a little early and

Shall We Make Dame Fashion An Automobile Saleswoman?

In Philadelphia there's a dealer who believes the trade should cater to the esthetic in automobile displays. He is E. J. Berlet, Westcott dealer and head of the Stability Motors Co., who says Philadelphia needs two shows—one in autumn for closed cars and another in spring or late winter—and who would recruit women models to display fashions that go with motoring as a means of inducing added interest in the automotive exhibits. Read what he says:

The automobile show for Philadelphia to my mind is a two-season problem. I think there should be two shows a year—one in the autumn for closed cars and the other in the early spring, or late winter. With regard to the closed car show proposition, I am greatly in favor of having an exhibit along esthetic lines. Women are the determining factor in such a show.

I would add interest to a specialized display of cars by having a large number of women models wearing the latest motoring garment fashions, some seated in the cars, others displaying the fashions after the usual manner of the manequin. In winter there could be shown in like manner the newest in heavy wraps, furs, gloves, scarfs and footwear. To the end of a fashion show for Philadelphia in connection with the automobile shows, I would be willing to guarantee 100 pretty girls as fashion models.

The time to show merchandise in any line is just prior to the time for selling it. So have a closed car show in the autumn.

and the state of t

perhaps shows held the latter part of February and the first part of March are much more productive from a retail standpoint. With the long list of shows, however, beginning with New York, it is impossible to have the New York and Chicago shows any later than they are usually scheduled.

Looking at the situation from a manufacturer's viewpoint, they seem to start the ball rolling and are undoubtedly means

(Continued on page 33)

Have You Sold

A TRACTOR A MILE In Your Territory?

The Frost Brothers, western New York dealers, did better than that in less than a year. Employing the principle of the entering wedge, they sold the most influential farmer in their district first. After that, real service, given on the farmers' own premises, kept sales humming

LITTLE less than a year ago, when they took the agency for Fordson tractors at Barker, Niagara County, New York, Frost Brothers had no idea of selling a tractor for every square mile of their territory. They just determined to sell tractors—the more the better.

To-day their record stands at thirty-seven sales for thirty-two square miles of territory. The exploit is the talk of the entire New York Fordson organization, headed by Thomas J. Northway, Ford distributer at Rochester. And Gordon Lee, sales manager of the Northway tractor

department, calls the Frosts master salesmen.

One has only to meet this pair of hustlers to discover why they are entitled to the soubriquet. Henry M. Frost, the elder of the two. is not a day over 30, while Benjamin, his brother, is considerably younger, so the experience that comes with age is not a factor in their favor. The success of the Frost Brothers has come not only because of the fact that they are technical men with practical experience, but also because they are true automotive dealers.

"Ever since the day that we were able to handle a monkey wrench we have been interested in machinery," said Henry Frost in sketching the history of their business. "When the motor car first began to come out we worked for weeks making a model to play with and later spent our spare time tinkering

up an old White steamer, so we got plenty of practical experience. About three years ago we decided that we would like to sell cars. Neither of us knew much about salesmanship, but after a series of talks with George M. Tyler, manager of the Buffalo Ford branch, we decided to take the local agency for the Ford car. Things went pretty slow the first year and we only sold nine cars, but the next year we sold more than double the number of cars our contract called for, and could have done the same last year if we could have obtained deliveries.

"Our first interest in tractors came when some of our

CAN YOU MATCH THIS PAIR?







BENJAMIN H. FROST

THE Frost Brothers are hardly out of boyhood, and they've been selling tractors less than a year—but they have sold them! The "how' of it—adaptation of a single dominant idea to their merchandising plan and another to service—is one of the bright chapters in the history of automotive salesmanship in New York State. The story may help you. Read it!

customers began to drop into the garage and ask us about them, so when it began to be noised about that Ford was to produce a tractor, we inquired about it. Later we made several trips to the factory where we saw the machines in the course of production. Our enthusiasm was unlimited.

"From that time we have practically lived the power farming idea. We began talking tractors to farmers in our territory long before we had any sort of a machine to show them, and upon the strength of our recommendation fifteen farmers actually postponed the purchase of a tractor until we could make deliveries. In June of last year we got our first machine and immediately put on a demonstration, plowing different types of soils to show what could be accomplished. At that first demonstration we took bona fide orders for nine machines and their accompanying implements. From that time on our sales have been limited only by the deliveries we have been able to obtain.

"We made it a point to sell the most influential man in our territory first. Farmers are peculiar people. They have great confidence in the judgment of their neighbors, and it has been our experience that if we can only secure an opening wedge it is an easy matter to make future sales. We placed one tractor on a farm that the doubting Thomases said it could not possibly operate on, because of

the heavy nature of the soil. It did work, however, and in a short time we had sold several others on the same road to this farmer's neighbors."

Above everything else, however, Frost Brothers attribute their success to the confidence of the community in their ability to furnish complete and competent repairs and service almost instantly in any part of their territory, and if it could be said that Frost

Brothers have specialized in any particular part of their business it is in the service end.

"Our customers know that if they purchase a tractor from us they can obtain spare parts instantly at our garage and if the services of a mechanic are needed the work will be attended to the same day the order is received," said Henry Frost, who supervises this end of the business. "We have only one rule in regard to repairs and that is:

"Keep the tractor out of the shop!

"The first tractor that we repaired needed the valves ground and the owner thought he was doing us a favor by running it into the garage. By nightfall the story had been circulated about that Smith's tractor had shaken itself to pieces and that the repairs would amount to several hundred dollars. That taught us a lesson and from that time on all our repairs have been made on the farm.



Frost Brothers' garage at Barker, a New York town of 1212 population

small kit of tools and another box of such things as spark plugs and other small parts, and a chain hoist. When we get a call for help it usually is a hurry call for engine trouble, and we simply hustle out to the farm in the Ford, back the tractor under a tree, sling the chain hoist to a limb, haul out the engine and go to work. We have yet to keep a man

Our outfit is sim-

ple in the ex-

treme, consisting

only of a Ford, a

waiting twenty-four hours for his tractor."

Frost Brothers are not without competition in their territory, either as garagemen or as tractor dealers, but through efficient business methods in their garage and linking up service with their tractor sales they have placed themselves unquestionably at the head of the automotive business in their township.

The History and Future of the Tractor

THE story of the tractor and its merchandising, with a preface reviewing the background of the industry—the steam tractor and implement business of the past generation—is to be told in the near future in Motor World.

A writer who has studied power farming for thirty years, who knows the status of the tractor dealer to-day, and is in a position to outline a plan of dealers' activities most advantageous to future development of the trade, has prepared a series of articles remarkable for its vivid description of the march of progress in the field of agricultural machinery.

The series views the tractor from the standpoint of the dealer and the future dealer. It will command the instant attention of the automotive and farm implement trade because it is written from the standpoint of one who knows intimately the ins and outs of the business, and who discusses its advantages and handicaps from a historical standpoint.

The value of a dealer may be determined by his attitude toward the tractor because of ideas he may have inherited or acquired. The series will attempt to trace these ideas to their source and to show how they must necessarily be modified to meet the newer conditions.

The articles will tell how the factor of credit, which has dominated the agricultural implement trade, got its foothold; it will show how this feature of the business must yield under the pressure of modern conditions to selling for cash; it will show the

status of the automobile dealer in tractor merchandising to-day and indicate the probable extent of his participation as the potential American tractor market, covering practically the entire farming territory of the country, is developed.

With many tractor dealers of today wholly without knowledge of the peculiar conditions which controlled the industry in the past, and with scores of automobile dealers, strangers to the implement trade, taking on the sale of tractors every month, the articles will have the effect of clearing away many misapprehensions which have existed and still exist, at a time when the tractor, as shown by recent tests, is getting its stride as a machine able in general to live up to its advertised capabilities.

CO-OPERATE

N. A. D. A. Text for the Trade

Vesper Tells Los Angeles Dealers Automobile Industry Must Compel Respect for Its Greatness

Los angeles, cal., Sept. 2—Cooperate!

The word summarizes the business sermon preached by F. W. A. Vesper, president of the National Automobile Dealers' Association, before 150 dealers of Southern California, assembled here recently.

Vesper emphasized the necessity of unity not only to promote the industry, to impress upon the public its importance and to maintain it as a vital factor in American business, but to protect it, in the nation and in the individual states, against restrictive or destructive legislative and administrative action.

Addressing a banquet of the Los Angeles Automobile Dealers' Association arranged in his honor, the national president reviewed the peril which faced the industry when, at the height of American participation in the war, the passenger car was on the verge of being classed as non-essential.

"The dealers of the United States must get together upon everything that is vital to their business," the speaker said. "Adopt the slogan of the dealers in Ardmore, Okla., who say: 'Help your competitor sell his car; yours will sell anyhow.'

"Work in the interest of legislation that tends to co-ordinate the laws of the various states governing automobiles. My message is to spread the propaganda of the motor car so that if ever again the occasion arises we will be in position to get our cause across. We've got to prove to ourselves that the automobile is an essential and then prove it to others.

"We've got to do this and we've got to get behind the Townsend national highway bill. It is of vital interest to every automobile user to have the highways of this country improved and extended and we must make the interests of automobile users our interests also. The Townsend bill would add to the \$40,000,000 this state has voted for highways \$40,000,000 of government aid."

Describing the hearings at Washington during the war crisis, Vesper said the representatives of the dealers of the country gained very scant recognition until one committee member spoke up and said to the committee: "We represent the National Automobile Dealers' Association." There was then no such organization, but immediately the National Automobile Dealers' Association was born, a room was engaged in the Willard Hotel at Washington and activities were begun.

He reviewed the trials of the dealers at the capital and said the average Senator's or Representative's idea of an automobile dealer was that of the Michigan Avenue or Broadway merchant, and this misconception continued until hundreds of telegrams from the small town dealers began to pour in. These tele-

grams were convincing evidence that there are enough dealers in the United States to have real political inflence, and when politicians are made to feel the voters' influence they sit up and take notice. Regarding legislation he said:

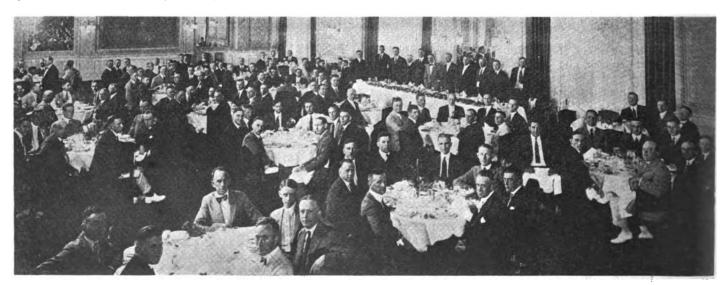
"We've got to do something about this law that permits seizure and confiscation of automobiles in which liquor is being transported. At present the dealer, who is the real owner of a car that is confiscated while in the hands of a user or purchaser on contract, has no protection. Already there are almost 1000 automobiles belonging to dealers in the hands of the federal authorities. Every time a car is sold on time payments and the temporary possessor is arrested or the car seized for transporting liquor the dealer has no claim under the law to recover his property."

Vesper took delight in jolting his audi-

Vesper took delight in jolting his audience with crisp, straight-from-the-shoulder thrusts of horse sense and humor. He was impressed, he said, by the fact that none of the speakers had referred to being in the automobile "game." For a year and a half, he said, he had been trying to convince the men in the motorcar business that theirs is a business and not a game. The long reference to the "game" and the "pleasure car" had been harmful, he said.

In addition to Vesper, speakers included: Ralph Hamlin, president of the Los Angeles association; L. V. Starr, treasurer, H. J. Coger, secretary, P. H. Greer, a director and former president and a director of the N. A. D. A.; B. C. Graves, of the Ford plant; D. H. Rose, president of the dealers' association at Pasadena, and officers of the Automobile Club.

Greer introduced Vesper and said that as the result of what the N. A. D. A. had done, every automobile dealer in Southern California should be a member of the national organization. He explained that the entire Los Angeles association membership belonged. Of the association's annual dues of \$30 per member the N. A. D. A. receives \$10, and it is the belief here that it is money well invested.



Los Angeles dealers at the Vesper banquet



By Ray W. Sherman

ERNARD BASSETT, who hoped some day to "have a million," had rather vague ideas as to how he would get it. If he could only "get his rights" and secure a "square deal" from certain people he conceded that he might have a little more chance at it than was at present apparent.

Among those who failed to give him this "square deal" was Henry Bennett, distributer of the Redman in and about Callawassa, for Henry was Bernie's "boss" and handed out the little pink prospect cards which were supposed to furnish the start on Bernie's "million." One thing of which Bernie complained was that Henry was fond of "bawling folks out." Perhaps Henry was. Who knows?

Anyway, on this particular afternoon Henry was in a mood for "bawling out" anybody. His disposition had slipped down like a false mustache and hung very much askew. Wherefore, when Reilly, Sennett distributer and Callawassa's leading automotiveite, entered Henry's office, the Redman dealer simply grunted.

"Same to you and many of them," laughed Reilly, and then Henry, taking advantage of a friendship dating from boyhood, swore at the Sennett dealer and asked him to sit down. He probably extended the invitation because Reilly had already put his hat in the mail basket and was reaching for a chair.

"Darndest bunch of mutts in the world!" said Henry, but without any explanation as to whom he had elected to the Mutt Club.

"Who? We dealers?" asked Reilly.
"Naw-w-w! These darned salesmen!
You can't drill anything into their heads!"

"Some of them are a bit backward," conceded Reilly.

"SOME of them? ALL of them!" asserted Henry.

"No, NOT all of them," Reilly contended. "There are—"

"Just listen to this!" Henry drew from the big flat drawer in his desk a pink prospect card and read: "William G. Grant, Callawassa Trades Exchange Bank—there it is, right across the street, almost—prospect for a coupe—has nothing to trade—easiest prospect we ever put into the files—and what do you think happened?"

"Sold him?" Reilly questioned, which was like waving a Bolshevik flag at a good American bull.

"NO-O-O!" Henry shouted. "The Colt people delivered a car to him yesterday! We had the finest chance to land him that ever was. I gave this card to Bernie Bassett, who spends most of his time on the floor wondering how we could deliver cars if he took the orders. A couple of days later I checked Bernie up on it, and what do you think he had done? WRITTEN A LETTER TO A PROSPECT WHO WAS ACROSS THE STREET! WRITTEN HIM A LETTER!" Henry was frothing like real four per cent beer.

"Rather offish in his salesmanship, isn't he?" said Reilly, smiling slightly.

"Offish? Just a plain MUTT!" And then Henry subsided, too spent to orate more.

"That's nothing," Reilly added. "When I was coming down the street just now I saw three salesmen in a salesroom on the Row pitching pennies on the floor. There were no cars in the place, so I suppose they figured that, having done their duty by the boss, they were at liberty

to use his floor for pitching pennies."
"More MUTTS!" asserted Henry.

"I don't know that I would call them mutts," said Reilly. "That's a hard word. I——"

"Well, it's what I call 'em—they're MUTTS!" Henry declared.

"Very well—let's call them mutts then," Reilly agreed. "But no matter what they are, I'd like to get a few thousand of the salesmen in this business into a close corner and have a nice fatherly talk with them. They don't realize what they're doing. They've all planted nice futures for themselves, but they're letting the weeds choke the plant to death!

"There is a crying need in this business for better salesmen. The salesman of the right type can go out and get any kind of job he wants.

"If a salesman has no cars to sell he has that great blessing—leisure time—in which to figure out how to advance himself. He can study. He can plan.

"And Henry," Reilly confided, "some day cars are going to be harder to sell than they are now. When that time comes there are going to be better salesmen to replace the ones who have no higher aspirations than pitching pennies. We'll need thinkers, workers and real men. We'll have to get them somewhere and TRAIN them. How or where 1 don't know-but that's what we'll have to do, and the boys who have let the weeds of inertia, thoughtlessness and contentment choke down their futures will probably be driving demonstrating cars and telling how they didn't get a square deal.

"This year—nineteen nineteen—there is a world of opportunity ahead of every man in this business. I wonder how many of us can measure up?"

A Department of

BETTER MECHANICS

No. 115

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the eleventh of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. Howard Pile

PART I—THE POWER PLANT (Continued)

HE completion of all the overhaul operations covered in previous installments now leaves the engine and transmission ready for running-in and testing. In order to carry out this work, some kind of a stand must be used to hold the engine rigidly in place and the stand should be fitted up so that the engine can be quickly fastened in place and connected up so that as little time will be lost in this operation as possible.

18

The stand will serve two purposes, running-in and testing.

1-Three quick clamping devices are required, two at the rear engine supports and one at the front engine bearing. These consist simply of U-shaped loops

What Has Been Covered

I-The power plant

- 1—Removing the engine from the car.
 2—Taking down the engine.
 3—Testing and straightening the crankshaft.
 4—Rebabbitting the cylinder block.
 5—Reboring the cylinders.
 6—Fitting new pistons
 7—Fitting the piston pin.
 8—Aligning the connecting rod.
 9—Fitting the rings to the pistons.
 10—Rurning-in the bearings.
 11—Testing and overhauling the magneto.

- neto.
 Overhauling the transmission.
- -Minor engine repairs.
 -The carbureter.
 -Assembly of engine and trans-
- mission.

 The Ignition System.

This Week

Testing the Engine

riveted or bolted to the stand and having hand screws to tighten the arms against the stand. When they are unscrewed a little way, the loop can be thrown back and the engine lifted out. In lifting the engine in and out of the stand, use the engine tongs which were described and illustrated in the early chapters.

2-After clamping the engine in position, the water connections must be connected to some source of water supply. This can either be city pressure in which a small quantity of cold water from the city mains is allowed to pass through the water jackets, or a hopper system shown in Fig. 99 in which the same water is used over and over until it evaporates or gets dirty in which case it is

3-The hopper system is to be preferred as it makes testing conditions as nearly like actual operating conditions as possible.

4—Install a boiler or tank of about 40 to 50 gal. capacity on a stand in such a position that the lower end of the boilewill be below the level of the lowest point of the water jacket of the engine when

it is in place on the engine stand. The boiler should not be more than 6 or 8 ft. away from the engine.

5-Two water connections are to be made in the boiler, using at least 1 in. pipe connections to secure a sufficient flow of water to allow for proper cooling. One of these is made near the bottom of the boiler and is connected to the inlet water connection of the engine, the other being made at a point in the side of the boiler about 8 in. above the level of the outlet water connection of the engine when it is in place on the stand. This is connected to the outlet water connection.

6-The top of the boiler is left open,

Next Week

The Radiator

Future Installments

Rear assembly Front assembly Chassis frame and dash Body, top and windshield The steering gear

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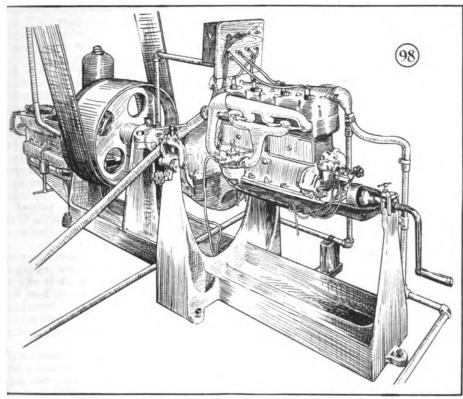


Fig. 98—One type of engine testing and running-in stand in which the belt supplies the power from an outside source

ither removing the pipe plug which is sually a stock fitting on a boiler or else utting a hole about 2 in. in diameter t this point. This opening is to permit he escape of steam and to allow a vater gage to be installed so that the perator can know at all times how much vater there is in the boiler.

7—The proper amount of water to arry in the boiler will depend on the emperature of the air, hot weather reuiring a larger amount than cold eather.

8—Another connection can be fitted or filling the boiler from the city suply when such filling is necessary or else he water can be put in through the pening in the top. The gage menioned in the previous paragraph is hown in a general way in Fig. 99, but his may be altered to suit the fancy.

9—When the connections are comleted, the water will have a natural irculation through the water jackets of he engine and the boiler and the engine ill be cooled, but will run at a temperaure near the boiling point of water hich is the proper temperature to run nd test the engine.

10—If the city pressure is to be used a cooling the engine, cocks must be inerted in the line to control the water as no much will make the engine run too old and will not allow of proper testing, convenient way is to have two cocks in the supply pipe, one a globe valve which as a screw handle and the other a lever andle. The screw handle can be regusted to allow the right amount of water pass, then simply opening or shutting the lever handle will allow the water to ass or cut it off and it will not be neces ary to make the adjustment every time

the engine is started up or a new engine put on the stand. This arrangement is shown in Fig. 101.

11—The special water connections to be used with either of these two methods are shown in Fig. 100. The rubber hose fits tightly over the end and is secured with a hose clamp.

12—An important point in the installation is the piping of the exhaust. This should be piped to the outside air by all means, as the exhaust is not only disagreeable, but highly poisonous and will have a very bad effect on the workmen in the shop. It is quite an easy matter to make up a permanent exhaust pipe from the testing stand to the outside air, using a regular Ford exhaust pipe and pack nut to make connection with the engine

to be tested. As this pipe gets quite hot, it should not be allowed to come in contact or near any wood, oil, grease, or anything else which would be liable to take fire from the heat. It should also be so protected that workmen will not get burned on it.

13-After the engine is run-in, which will be covered later in this chapter, it will be necessary to run the engine under its own power for a time to discover whether there are any faults in any of the parts and also to limber it up a little. For this purpose, in addition to the water and exhaust connections, it will be necessary to hook up the ignition and the gasoline. The general practice in the matter of ignition is to have a set of coils attached to some kind of a swinging support close to the testing stand. The wire is maintained on this test set of coils, and it is only necessary to connect the proper wires to the timer, the magneto contact to the magneto terminal and the cables to the spark plugs. The engine being tested will then generate its own current, using the timer which will be left on the engine. When the engine is to be taken off the stand, the wires are simply unhooked and the support with the coils on it swung back out of the way.

14—The supply of gasoline for testing the engine is taken from a small tank, holding a gallon or less, a regular feed pipe and connection being left on the tank so that it can be quickly attached to the carbureter. Some engine testing stands have a tank as part of the regular equipment.

Running the Engine In

The engine should be run-in from outside power for a period of from 1 to 2 hr., or until it has lost most of its stiffness. Here are some suggestions for use in connection with running-in:

1—Fill the crankcase with oil to the level of the top cock and then add about 1 qt. more.

2—Squirt a generous quantity of oil in on top of the pistons through the spark-plug holes and souse plenty of oil on the valves, tappets, pedal mechanism, etc.

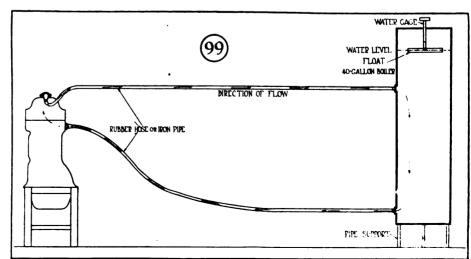


Fig. 99—Diagram showing the water connections for the hopper system of cooling

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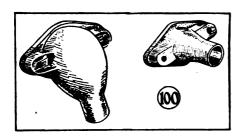
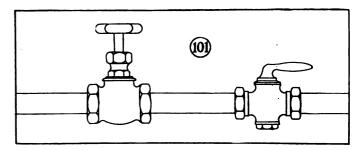


Fig. 100—Details of inlet and outlet water connections for testina

Fig. 101—Two cocks installed on the water line permit of quick action



3-If a combined test stand and burning-in stand is used, the power from the belt is used and this should be applied gradually at first so as not to put too much strain on any particular part that may be stiff or may not yet have gotten its supply of oil from the lubrication system.

4-If a separate engine testing stand is used, apply the power in whatever way it is intended to be applied. Fig. 102 shows an installation which combines a testing and running-in stand with an electric motor which is used to start up and run the engine. As soon as the engine runs under its own power, the motor is shifted back out of the way and the current cut off.

5-After running under outside power for about 1 hr., shut off the power and try to turn the engine over with the hand crank. Experience will tell when the bearings and other parts have loosened up enough to start running the engine under its own power. It should be possible to lift the crank without too much exertion.

6-The gasoline can now be turned on and the switch thrown on and if the carbureter is given approximately the correct adjustment at the needle valve the engine should start. If it stops after the outside power is thrown off, then there is either poor compression, a bad mixture, or the engine is still too stiff.

7-After the proper remedy has been applied for this condition, run the engine under its own power for a period of from 1 to 2 or 3 hr. It should be stopped at intervals after the first hour and tested with the hand crank. As soon as the engine can be cranked without too great difficulty, the test can be terminated as it will loosen up a good deal in the first few miles of running after it is installed in the car.

8-While the engine is running and during the test, the clutch may be held in neutral by cutting a block of wood to fit between the clutch pedal and one of the crankcase bolts as shown in Fig. 104. The clutch should be out about 2 in.

9-While the engine is running under its own power, the clutch, reverse and foot brake should be tested. This can be done by manipulating the pedals by hand. For instance, holding the clutch in neutral with the block,

10-Push in the reverse pedal. It should turn the shaft at the rear end of the engine in the opposite direction without any noise.

11-Push the clutch pedal all the way forward and try the low speed.

12-While one of the gears is in, apply the foot brake slowly and see that it takes hold and slows down the engine.

Engine Noises

During the test the operator must watch out for unusual noises which would tend to indicate something wrong with the assembly.

Here are some things that may happen: 1-Bearing knocks. Either main or connecting rod, caused either by bearings which have not been burned in properly or through oil not getting to the bearings as soon as the engine is run on the stand.

2-Knocks caused by pistons or rings sticking and seizing in the cylinders. This is caused by pistons which are too tight or rings which have not been filed off enough at the lap joints. Sometimes this can be remedied by running-in a little longer with an extra supply of oil at the places which bind.

3-Timing gear noises. These might take the form of a grind, indicating that the timing gears are meshed too tight or a gear rattle, indicating that the gears are meshed too loosely. There is really nothing that can be done with gears that are meshed too loosely excepting to tear down the engine again and do the job properly. A slight grind may disappear after the engine gets worn a little. This is especially true with new gears.

4-Valve noises may be caused by improper clearance between the tappets and the valve stems. If the engine misses, and the missing can be corrected by inserting the blade of a screwdriver between the coils of any one of the valve springs, this indicates that the particular spring is weak and it should be replaced with one which has the right amount of

tension.

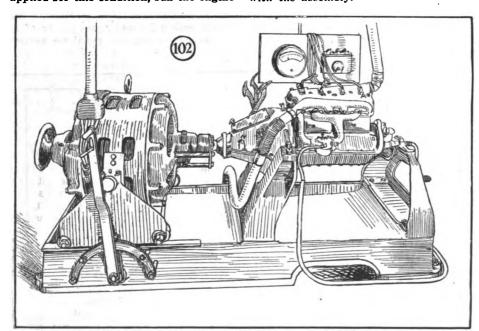


Fig. 102—An electric motor rigged up in connection with an engine testing stand in such a way that the motor starts the engine

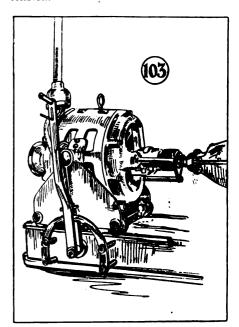


Fig. 103-A close up view of the motor shifting mechanism

Digitized by GOGIC

5—Impreper timing of the valves would be indicated by a refusal of the engine to start or by impossibility of keeping it running after it was started. This can be roughly checked up by taking out the No. 1 spark plug and noting whether the piston is at its top stroke when the exhaust valve just closes and the inlet just starts to open. The piston should rock on top stroke between these two valve positions. If the first cylinder is right the others are bound to be right. The timing of the ignition is very simple and the adjustment of the pull rod was taken up in the chapter on ignition.

6—Loss of compression, evidenced by lack of power, may be caused by leaky valves, leaky rings or leaks around the spark plugs or cylinder-head gasket. The latter two can be checked up by dropping a little oil around the plugs and the edges of the gasket. Leaks will be evidenced by bubbles through the oil in the case of slight leaks or by forcible blowing out of the oil in the case of bad leaks. Apply the proper remedy in either case.

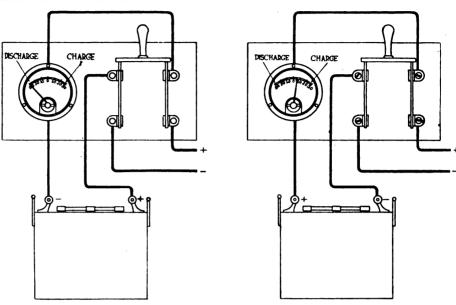
7—Compression leaks through valves or around rings can be tested by pulling the crank handle slowly against compression for one cylinder at a time. As a rule, the compression can be heard leaking out in addition to the ease with which the crank handle can be pulled up.

8—A defective cylinder-head gasket or a crack in the cylinder may allow water to enter the cylinder. This will be shown by an accumulation of water on the points of the plug in the defective cylinder. Water in any considerable amount will cause missing through the water short-circuiting the plug, but a very slight amount may be turned into steam while the engine is running and is hot, so that a slight defect would not be noticed until after the engine has cooled off a bit.

9-After the engine has been run in

SHOOTING TROUBLES

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Sketch showing an ammeter cut in on positive lead from rectifier. When the ammeter shows 30 amperes the connection is wrong; the correct connection should show 6 amperes

Editor Motor World: We have simplified matters in regard to connecting up batteries the wrong way to the rectifier by making a little wall board with a good car ammeter and find that when connected properly the ammeter will always show the current going through at about 6 amperes, while if the battery

were hooked up wrongly, the ammeter would show 30 amperes and the careless helper would instantly know that he had a wrong hook up. We suggest that you put this information into a sketch showing an ammeter cut in on the positive lead from the rectifier.—Reader.

and tested, the oil should be drained out, the crankcase washed out with kerosene and a fresh supply of oil put in the crankcase, filling the level to the top cock, and then adding about ½ pt. This will give ample lubrication to the rebuilt engine and at the same time it will not be excessive so as to cause fouling of the plugs. The owner should be cautioned to keep the level of oil right up to the top cock, especially during the first 200 miles. Carrying the level near the lower cock means more rapid wear and a hotter running engine.

10—In testing the engine on the stand, a timer advance device can be rigged up out of an old timer pull rod to hold the timer in the desired position.

Westinghouse Indianapolis Office

NEW YORK, Aug. 28—The Westinghouse Electric & Mfg. Co. has reopened its Indianapolis office for the automotive equipment department, which was closed during the war. It is at 1003 City Trust Building in charge of Knox Easterling.

Traffic Truck Building Addition

ST. LOUIS, Aug. 29—The Traffic Motor Truck Corp., which recently built a large plant with a capacity of 50 trucks per day, is building an addition to its present plant at 5200 N. Second Street. The new building will cover the block adjacent to the present Traffic plant and will afford 30,000 sq. ft. of floor space.

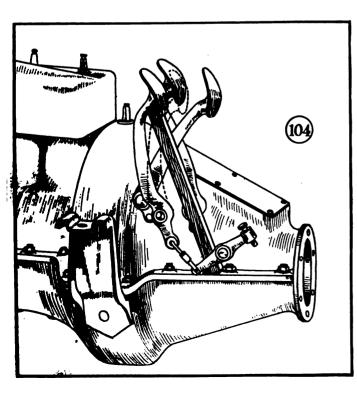


Fig. 104 — The clutch is held in neutral with a block of wood which is cut the right length to go between the crook on the pedal and one of the crankcase bolts. This block should hold the pedal out about 2 in.

Limousines—Strikes - Unrest—What?

We Are Remodelling Our House and Are Living in Temporary Quarters

EAR MR. DOE: Your letter which prompts this reply is an excellent indication of the attitude of the general public toward the union and organized labor. The aim of the article is to point out the natural result of unionized effort as we are now tolerating it in a dispassionate, analytical manner based upon sound reasoning and precedent. Undoubtedly the article and the writer will be subjected to a severe criticism on the part of a certain faction. He is content, however, to accept the verdict of the vast and usually silent majority.

Among the early attempts at organization of labor were the activities of the "machine breakers" of England. The name itself is indicative of their sole purpose and descriptive of their only function. They "broke" machines which deprived them of hand labor. They saw in machines their ultimate ruin and moved destructively to construct their own future, a paradox which has never since been overcome by organized labor. We of to-day who foster invention smile at such methods. A good comparison: would be to legislate the Edison company out of existence on the theory that it deprives ten thousand lamplighters of a job.

The point is this: From its very inception labor organization has been a destructive force. Originally intended to destroy the great and misused powers of capital, it received the sympathy of the general public. The very keystone of democracy is to serve the majority. In its original fight organized labor held the majority and, in the natural order of things, was served. Excess profit taxes, income, corporation, inheritance taxes and a score of other restrictive measures have all served organized labor's purpose.

NOW organized labor is in the minority and the general public in the majority. The former has lost its ideal. It has outlived its usefulness. In its struggle for continued existence it is carrying on the very program it con-demned in capital, an un-American program because it serves the minority to the detriment of the majority-a destructive force in a constructive era, a careless, thoughtless, irresponsible, grasping perpetration that is rushing itself to its logical end, collapse; collapse before the forces of democracy and Americanism, before the inherent and indisputable right of the majority over the

Do not be too free in condemnation of the forces of unionism, however. It has run true to form. Human nature has asserted itself.

Capital with power was a menace.

Organized labor through its war against capital has acquired power and now is the menace because, like capital.

Why This Page Was Written

Editor Motor World: When I received the following letter [printed on this page], I was not disposed to give it more attention than that of a personal answer. Later I showed it to a few of our mutual friends here in Boston, and each one of them seemed to favor very strongly a come-back through "the only motor magazine." in case you were disposed to give such a come-back the space.

I have no idea what the attitude of your sheet is for the reception of such a direct attack on the union problem. I can realize that there are many reasons why you would not desire to print it and why it would be advisable for you not to print it. However, I am sending it along for your perusal and any action that you may care to take in the matter. I will not write except as I see, and I am darned sure that the little article I enclose very clearly expresses my views and those of my associates who have read it.—Charles F. Coe, Boston.

CHARLES F. Cob: Your article in a recent Motor World was very interesting. It was well written, and I enjoyed reading it very much. I employ about nincty men, and am having the usual amount of trouble trying to keep them from walking out on strike. I have given them good straight talks several times, and have seen that all my men had copies of your articles. as the union organizers are around trying to get the men to organice. I do not want union men in my shop. I am not opposed to the union idea. but I don't dare to put my investment in a place a "walking delegate" can tie it up for mc unless I give all my profits away.

I am going to ask you not to let my name be known in this, as it would hurt my business and make me trouble if the union people wanted to use it against me, but I would appreciate it if you would write an article dealing with the labor union problem and make a few suggestions about what to do in a case like mine. Thanking you for a personal reply or one through Motor World, Yours truly, John Dor.

it attempts to turn that power to its own selfish ends.

Both organized labor and capital are a pitiful minority. The vast majority is the general public. Ultimately, in the very nature of every ideal held dear by Americans, it is this vast majority which must and will be served. This great majority can see no redeeming feature in an organized labor platform which cries "More Pay—Shorter Hours," when their brothers are sacrificing lives on the battlefield for \$30 a month—THAT THE MAJORITY MAY BE SAVED.

"More Pay" was theory when they had stepped into better men's shoes through an ineptitude for military service and the best of this country's manhood was in France on the world's mission; "shorter hours" when the world day was not then long enough to feed clothe and equip their brothers "over there." Such is the platform upon which organized labor now stands, an antiquated, irreconcilable, foreign platform having no place in the new era.

The general public, with its vast majority, has the last word and the great power. In a government of, for and by the people no force which disregards Mr. Average Citizen and has for an accepted and professed program special privilege and inflated pay for Mr. Minority Man can exist.

The organized labor of to-day is as odious as the capital of yesterday. The people will readily understand the new disturber and just as readily disarm and reprimand him. About the surest way to defeat organized labor as it is to-day is to leave it in the hands of the general public. What unionism is trying to accomplish in America "isn't being done"—NOT AFTER AMERICA HAS BLED IN SERVICE OF THE GREAT MAJORITY, OR AS LONG AS AMERICA IS A GOVERNMENT OF, FOR AND BY THE PEOPLE.

On the other hand, there is a vast class of workers who have not reaped rich "war harvests" but who have paid the war's price in sorrow and dollars. Unto these loyal people a new day is dawning. A new realization and a new appreciation is manifesting itself in "industrial management" and will reflect in better working conditions, greater remuneration and altogether a mutual understanding and unanimity of endeavor which will bring as one of the fruits of the present unrest better living conditions. We are remodelling our house and are living in temporary discomfort.—Charles F. Coe, Boston.

THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Transferred Car Belongs to the Wife

The Supreme Court of Minnesota in an interesting recent case decided that, where property is purchased by a husband as a gift to his wife, with knowledge on the part of the seller before the sale takes place that the property is bought for the wife and that the title is to pass to her, the seller cannot afterward move to set aside the transfer on the ground that it was made to defraud creditors even though he has not been paid for the automobile.

Suit was started by the wife against a sheriff to recover possession of an automobile which had been taken upon a writ of attachment issued in an action brought against the husband by the seller of the car.

On May 31, 1917, the husband, H. W. Coulter, signed an order for a Cadillac touring car. The stipulated price was \$2,-290, of which he then paid \$200. At the same time, notes for the balance, running to the Cadillac Company, were executed by Coulter and his wife. Part of them were paid. In the spring of 1918, the company took a chattel mortgage on the car from Mrs. Coulter to secure the notes then remaining unpaid.

The sale of the car was first broached in 1916, when there were negotiations between the Coulters and the Cadillac agent at Duluth, which did not result in a sale, Coulter declining to buy unless satisfied that his wife could learn to drive a car. This was finally demonstrated. At her request the agent called at her house on the evening of May 31, when her husband was at home. She stated that he was going to buy a car for her. The agent was then told by Mr. Coulter that he "wanted to buy the car for Nathalie," and that the agent should "teach her how to run and oil it and do all possible work upon it." It was agreed that certain changes should be made in the car so that Mrs. Coulter could operate it conveniently. Coulter was absent from home the greater portion of the year, his wife was in poor health and had three young children, and it was his desire that she and the children should be out of doors as much of the time as possible.

After the car was delivered, Mrs. Coulter alone drove it. On June 23, 1917, a state license to operate it was issued to Coulter, and during that month he took out insurance upon it in his

own name. On July 10, he gave his wife a bill of sale of the car. In October, he paid the wheelage tax on it to the city of Duluth. He obtained the use of a private garage, where the car was kept and, in April, 1918, applied for a permit to put up a frame garage near his residence.

Judgment that the wife was entitled to possession of the car was therefore held to be proper. Coulter vs. Meinig, 172 N. W. 910.

Decision on Disputed Car Value

Editor Motor World: Having been one of your subscribers for several years and wishing legal advice, I am going to give you a brief description of my trouble and wish you would let me know your opinion by a personal letter.

As you will notice by my contract, I purchased a 1919 Cadillac costing \$3,450, which is the retail price of the 1919 7-passenger touring, standard color, equipped with cord tires, delivered in this city. The company from which I purchased is not the authorized agents for the car in this territory, but the manager told me he had a right to sell me a new Cadillac, so I traded with him and paid him the price of a new car. The company also runs another garage at Dexter, Mo., 40 miles away, where the manager lives himself. He was going to deliver the car himself on May 1, 1919, but, as the roads were very bad, he said he would wait until they dried up, which was agreeable to me. But, on May 7, he sent me a letter stating that he had to have the balance of the money on May 8 or he would deliver the car rain or shine, and that if I sent the money he would keep it in storage free of charge until the roads were good. So, not wanting to drive a new car of that price in the mud, I sent him my check for the balance and got my receipt in full for the car the next day.

On May 15 the roads were good so I went after my car. I noticed that the speedometer read 294 miles, the finish on car was dull for a new car with several spots and streaks and the tires were all cracked on the sides. I told him the car did not look new and he swore it was a brand new car and all the driving it ever had was when he drove it in, not wanting to tell me

where he got the car. So when I arrived home I wrote to the Cadillac Co. and they sent me a letter, which I am sending you and which is a true copy, showing that the car is a second-hand 1918 Cadillac.

As soon as I received the letter from the Cadillac Motor Co. I went to see an attorney, and he told me I had a good case against the selling company. He came with me, and we drove the car in to Dexter and showed a copy of the letter from Detroit. He admitted that he had bought the car, June 28, 1918. but that the car was identical with the cars the Cadillac were putting out now, and that he sold it to me in good faith, so he refused to do anything, not wanting to give me back my Ford and my money and taking back his car. My attorney advised me to keep the car and sue him for a breach of warranty for the difference in the value of the car with that of a brand new 1919 model. The difference in the cost between the 1918 car sold me and a 1919 is \$255.09 overcharged.

The Cadillac state agent told me that I should be reimbursed \$800 clear of expenses in order to get a satisfactory deal. Of course, I will never be satisfied with a second-hand car, for I never bought one and never intended to do so, as you will notice that I paid the full price of a brand new 1919 with extra for cord tires, amounting to \$3,450.—J. E. P., Waterville, Me.

New Massachusetts Motor Car Law

All taxicabs and commercial vehicles entering Massachusetts after September 3 must, according to a new law, be equipped with drivers' mirrors.

Another law relates to theft of motor cars and makes the penalty for stealing not less than five nor more than ten years. Also, the prosecuting authorities are tied up through a clause that provides the defendant will have to go to trial. The law goes into effect September 22.

Another law on the sale of used cars and trucks, effective September 25, provides that no owner of a motor car may sell his or her vehicle to any other person, brother, sister, mother, father, any relative or a friend without going to the police and the Highway Commission and obtaining permission.



Editorial Observation

Demonstrating the Truck

THE National Motor Truck Development Tour, arranged by the National Association of Truck Sales Managers to demonstrate the haul-by-truck idea to farmers of the Middle West, is doing more than that.

It is arousing local automobile dealers to study the possibilities for them in truck merchandising. It is interesting state, county and municipal officials in development of truck usage, for the good of their communities. It is inducing a friendly attitude on the part of bankers toward financing farmers' purchases of trucks.

A concrete instance of the awakening of dealers along the route is found in the decision of the Iowa trade for a state truck tour, to leave Des Moines in mid-October for a demonstration trip through the agricultural sections of the commonwealth.

It may be that the Middle West tour contains more of propaganda than practical performance, as its itinerary of scheduled stops at cities and large towns rather than in farm centers would seem to indicate, but at least there has been a fairly representative amount of actual work under the eyes of the farmer. And six states can not see trucks, talk trucks and read trucks in their local newspapers without absorbing in a considerable degree the truck idea.

Will It Pay?

THE National Automobile Chamber of Commerce, which did not receive the applause of the New York dealers and distributers when it took out of their hands the 1920 show, is now being criticized along the metropolitan "row" for its decision to hold the truck show in the Eighth Coast Artillery Armory, several miles from the city's business center.

The association determined upon a simultaneous date for the passenger car and truck shows to avoid a repetition of last year's experience, when the commercial vehicle exhibit drew small crowds the week following the car display. But it has more than nullified this advantage, in the opinion of many dealers, by locating the truck show so far uptown—at 193rd Street and Jerome Avenue in the Bronx—that the attendance will be negligible, unless exhibitors go to the trouble and expense of conveying prospects to the armory.

No fault can be found with selection of the Grand Central Palace, practically at the "hub" of the metropolis, for the passenger car show, but it would seem that the Chamber should have exhausted every possible means of locating the truck exhibit in the same vicinity, so that it would share in the attendance at the stellar exposition.

The exhibit in the armory undoubtedly will be patronized by the usual run of men in the trade, attracted from various eastern centers to inspect an assemblage of the latest truck models and equipment. But this type of patronage will not make a show a success. To meet expenses and to bring to the exhibits of its space rentors the hosts of prospective truck owners necessary to make the effort really worth-while the exposition should not be so far from the passenger car show.

And the New York situation is somewhat analogous to that in Chicago, where the truck show has been moved to a location that is anything but desirable.

It's a long, long trail from the business districts to these truck show sites. And it is quite possible that the dealers, especially those in New York, may not be far wrong in their declaration that these selections offer another evidence of the folly of substituting "national" for local management of automobile shows.

The supper was of the kind told about in story books.—From the publicity of the National Truck Sales Managers' Development Tour, passing through Iowa farming country.

Why truck sales managers leave home!

What more natural than that the trade should think it worth while to show trucks and tractors to Missourians?

The National Truck Development Tour took along a whole naval band to blow its own horn in the Middle West.

Do you remember when, for lack of something better, you used to put some cars in your show windows?

The Ohio tests indicate that the tractor will soon be able to hoe its own row.

Where are they going to get mourners for the passing of the tire guarantee?

Well, when do you want the shows held?



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Making Used Car Into Truck

Editor Motor World: In the July issue of Motor World, on page 18, you have given space to an interview with a truck sales manager who advocates making "Used Car Into Truck."

The gentleman may be a salesman, but never by the greatest stretch of the imagination could he be construed as a truck salesman, in the true sense of truck salesmanship. If his statement should be in any way right, surely the manufacturers of trucks would never have spent the millions that have been spent on factories and mechanical equipment to make a properly built motor-driven vehicle for truck purposes.

Just how this dealer arrives at his decision is quite beyond our comprehension. How making use of the decrepit, wornout passenger type of motor by the mere addition of a different type of frame built on truck lines would have the effect of renovating and reviving the motor is a puzzle to us.

At no time have we been confronted by the passenger car man stating that his type of motor was built for any other purpose than for passenger car work, nor have we found the truck type of motor being advocated for passenger car work; and surely if one would hold good, the other would.

We feel safe in saying that at any time a truck man convinces the user that he can convert his passenger car into a truck, surely he defeats the purpose of the truck, and will undoubtedly create dissatisfaction in the mind of the prospective buyer, forever removing him from buying a real truck for his use.

The Auto Outing Co., which handles the Selden truck from 1 to 5 ton capacities, makes it a feature to ascertain the type of business, conditions of roads, loads, etc., before recommending to the prospect the size and type of truck he should have.

Our belief is that the proper outlet for the used passenger car is to rebuild and market it as a passenger car, and that only, and if the cost of rebuilding it is prohibitive consistent with the sale price, then consign it to the scrap heap. Trade them right first and make the used car department profitable, but by all means do not attempt to sell a prospective truck user a makeshift, and thus give the whole truck industry another setback.

We are too much interested in efficient work for our truck users to ever allow ourselves to do other than convince the buyer that a truck built on the right type, from the motor to the tail-light, is the only right kind of conveyance for truck usage.—H. F. Cogill, Auto Outing Co., Baltimore, Md.

No Tax on Trailers

Editor Motor World: There has been considerable discussion about the interpretation of the Revenue Act as to the war tax on trucks and trailers. Enclosed

Gives Thanks

Editor Motor World: We thank you for the many helpful and beneficial suggestions we have received through your paper—Paxor Automobile & Engineering Co., Toronto, Canada.

you will find copy of a letter we recently sent to all our dealers, showing that trailers and trailer parts are not taxable. —King Trailer Co., Ann Arbor, Mich.

Enclosure:

Regulation 47 relating to excess taxes in article 2.

After describing the 3 per cent tax on trucks, it states: "The act specifically exempts tractors even if sold in combination with a trailer."

Article 16 further states that "Automobile trailers, regardless of the number of wheels which they may have, are not parts of or accessories for automobiles, but rear portions of automobile trucks, automobile wagons or other auto-

mobiles not properly called trailers are practicable as parts of the automobile."

The last sentence, relating to rear portions of automobile trucks, we presume, has reference to such units.

Using Every Inch of Limited Supply Space

Editor Motor World: We are enclosing a photograph of the interior of our automobile supply store, which we think clearly shows that a large store space is not absolutely essential.

The inside measurements of the store are 8 x 26, and with the growth of the business, it has been necessary to utilize every inch of space.

We do not recommend the overcrowding of accessories in this manner, however, as lack of space is a handicap in many ways, and we are having a new building constructed, in which we will be better able to make proper display and handle our stock in a more orderly manner.

We are careful readers of Motor World and find many good ideas that we can use in our business.—P. M. Quien, Napa, Cal.

Shortcuts of Value

Editor Motor World: I am a reader of Motor World and give a great deal of my time to the shortcuts. I consider them one of the best parts of Motor World.—Harold T. Mabry, Gus Edwards Motor Sales Co., Paducah, Ky.



How Quien of Napa, Cal., makes a small store do a big business

SCIENTIFIC CONSTRUCTION

GARAGES

SHOW ROOMS

REPAIRSHOPS

Plan No. 1

An Electrical Service Station

Character of business — Electrical service on all electrical parts of all cars.

Details wanted-One-story building with no basement except what may be necessary for a heating plant, building 50 x 125 ft. on corner lot, cement floor, driveway of practical width, exit on side street, arrangement to be such as to cause the least possible confusion in parking cars in the building for repairs and taking them out when completed, office, rest room for ladies, lockers for employees, men's room, shop for electrical work, battery repair and recharging room, place to put batteries that have been recharged and are ready for delivery, place to wash cars, shipping room, etc.

Name—General Auto Service Co., Inc., Salt Lake City, Utah.

Answer—Herewith is a plan which is drawn to meet your requirements. On one side of the main driveway is an accessory store, stockroom and office and on the other side a storage battery store, back of which are storage battery, storage rack and the battery shop. Since the storage battery store takes up little room and since the batteries are rather dirty and unsightly articles we advise you to have this a separate store.

We recommend steam heat and suggest that you obtain a reputable steam-fitter to install it. You will find that some steamfitters are good and some are poor, and the proper running of your plant depends on the ability of the man you choose to do this work.

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

The shipping room had best be in the rear end of the accessory stockroom, that is, if we understand this part of your problem correctly.

Rather than have a number of separate partitions for the different cars, we have outlined a plan for whitewashing the divisions on the floor. This allows greater latitude in getting the cars in or out, and besides this, if the stalls are to be changed at any time, it is an easy matter to paint out the old marks and paint in new ones.

Plan No. 2

A 40-Ft. Extension to a Garage

Character of business—Storage, repairs, battery service, welding, etc.

Details wanted—To build a 40-ft. extension to an existing garage, the present building having no provisions for service. Present building 48 x 70 ft. Extension to include

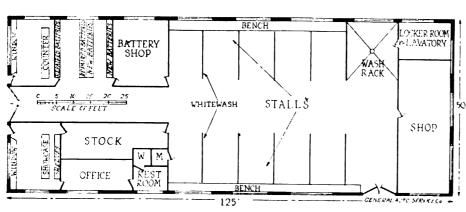
battery room and welding room. The west wall, which is to remain as a partition to the shop, has a large door in the center and three large windows on either side. Town of two hundred inhabitants.

Name — Iverson Garage, Watson, Minn.

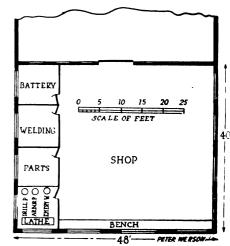
Answer—We are sending you a sketch of the shop as requested. If this is not exactly what you wanted please send us more details and we will do it over for you.

It is possible that you would want the machine tools-lathe, drill press, etc.-out where there is more room, but the movement seems to be to put these machines by themselves where the rank and file of mechanics will let them distinctly alone, a regular machinist doing all that kind of work. This has the advantage of keeping delicate and accurate machinery in the hands of a man who understands it and who knows how to take care of it. If the number of men you employ and the volume of business you do warrant it, by all means employ a special man to do the work. Machine tools, although they look pretty husky, are easily deranged by incompetent hands and then it costs some money to bring them back to a point where they will again render the service required of them.

If it is decided to put the machine tools out in the shop in spite of these warnings, then the parts room can be enlarged to take up this additional room. as the plan as given does not allow any too much room for this purpose. The welding room should be enclosed by a



Plan No. 1—One-story electric service station designed for the General Auto Service Co.



Plan No. 2-40-ft. extension to the garage of Peter Iverson

27

Plan No. 3—Brick garage 60 x 100 ft. for F. W. Beck & Co.

fireproof wall and have a fire door with a fusible metal link so that it will shut automatically in case of fire. Most towns and cities have laws compelling this kind of device, but even if it is not compulsory in your community, you should make your motto "Safety first" and install one anyhow.

The battery room should be well ventilated so that the acid fumes and hydrogen from the batteries will be carried off without doing any harm to machinery or operators.

Plan No. 3

A Building for Ford Service

Character of business—Ford sales and service.

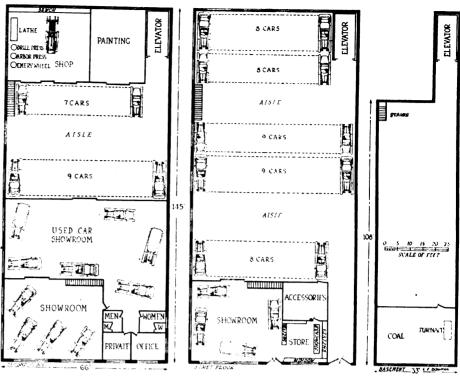
Details wanted—Brick garage, one story high, 55 or 60-ft. frontage on road, 100 ft. deep, showroom, accessory store, room for complete stock of Ford parts, office, roomy shop, room for battery work and room for man to sleep in.

Name-F. W. Beck & Co., Butterworth, Va.

Answer—Herewith is a plan drawn exactly according to your specifications. It seems perfectly clear to us and consequently there is nothing to explain.

However, if there is some feature that is not clear to you or with which you do not agree, we shall be very glad to go into details.

You will notice that we have provided one room marked "stock" which is out in front near the showroom and another marked "parts" which is near the shop. The idea is, of course, to separate the parts, possibly duplicating in the two rooms so that the workmen in the shop will all apply the window of the room



Plan No. 4—Showing layout of garage of L. E Bowman with desired extension

nearest to them and the customers who purchase parts at retail are handy to a room near the salesroom. Possibly you can think up a scheme which will more nearly fit in with your particular requirements, but as we do not know just how the proportions will run, we have put it on a general average.

The accessory store has been placed right next to the car showroom and this has been found to be the best possible arrangement in actual practice because it brings everything that you have to sell right within sight of the prospect and if you are selling him a car perhaps he will be interested in some of the accessories, while if you are selling him an accessory he may become sufficiently interested in the cars on the showroom floor to become a real car prospect.

Plan No. 4

A Garage Extension for Expansion

Character of business—Car sales and distribution, accessory department, used car sales, storage, service.

Details wanted—Addition to present garage, the existing building being 33 x 145 ft., with basement 108 ft. long. Second floor of present building not now occupied by inquirer, but will be with completion of improvements. Entire building when completed to be 66 ft. wide by 145 ft. long, the basement to be used for storage. Elevator to be used for access to second floor and basement, showroom large enough for six cars, accessory department, salesroom, paint shop, entire repair department

on second floor large enough to accommodate four cars, first floor for new car salesroom, accessory salesroom, wash rack and elevator, the remainder to be used for public storage. Offices in rear of salesroom, with mezzanine arrangement. Name—L. E. Bowman, Kendallville, Ind.

Answer—The plan you have in mind is not quite clear to us and therefore it may be that the sketch which we are showing will not meet requirements. In that case additional information will be required.

However, we have tried our best to follow your ideas and perhaps the plan which is submitted will at least serve as a basis for a future one to be improved upon. Instead of putting the offices in a gallery or mezzanine as you suggested, we put them on the second floor, where they could be easily reached by a stairway, which we have not shown because we did not know just where you would want it.

We strongly advise against the use of the basement for storage purposes and we have time after time stated our reasons for this in these columns. Briefly the reasons are these: The dampness which is present to a greater or less degree in all basements has a bad effect on both the finish of the cars and on the metal parts. Then again, the basement is nearly always dark and the customer will not as a rule want to pay any kind of a good price for storage of that kind. It is really cheaper in the end to build another story on the building because the storage prices can be made higher than when the cars are stored in a dark, damp basement, and so the profit will be

Repairshop Shortcuts

From Motor World Mechanics

NO. 2269—ARMATURE CENTER SET

A device for swinging an armature between a set of centers is often of considerable use in repairing, rewinding, soldering terminals and conducting various repairs on the commutator. centers themselves are made from bolts with lock nuts, one of them being of extra length and being bent into the form of a small crank so that the center distance can be quickly changed. For extreme changes in length, the L-shaped support at the same end as the crank is slotted and two cap screws thread into the main body so that the length of shaft that can be swung is only limited by the number of threaded holes in the main support. The whole device is swiveled on a flange so that the entire center set with the armature on it can be turned in any direction.—Kelsie Click. Fostoria, Ohio.

NO. 2270—PISTON-RING HOLDER

This is a holder to hold piston rings when grinding them down to size on an emery block or surface plate. The circular block has two cross strips secured to the under side, the width or outside diameter of the strips being such that the rings are held by their own tension when snapped on over them. The thickness should, of course, be less than the width of the rings.—Charles H. Willey, Concord, N. H.

NO. 2271—CHANGING THE TONE OF A BELL

Where there are a number of bells or gongs in a shop and there is confusion in knowing just which one is ringing, it is convenient to change the tone of the different bells so that they do not sound alike. This can be quickly done by cutting one or more slots in the side of the bell, the depth of the cut and the number of cuts determining the tone. The cuts may be made with a hack saw.—G. H. James, 3d, Smith & Kent, Inc., Malden, Mass.

NO. 2272—HOLDING A STUD IN A VISE

A stud, bolt or other threaded piece may be held firmly in a vise without damaging the threads in the least by means of a split nut. The nut should be of a diameter and thread to fit the stud and one side of it is cut through to the hole with a hack saw. This will give plenty of clearance and will allow the nut to be compressed on the threads of the stud when the nut is held in the

Make a Dollar

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay you a dollar for every one accepted.

The only requirements are these:

- 1—Describe the shortcut briefly but clearly, in a few words.
- 2—Send a sketch, in pencil or pen, no matter how rough; our artists will finish the job.
- 3-Write on ONE side of the paper only.
- 4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

vise. Thread cutting or any other operations can be carried out on the other end of the stud without fear of its turning if the vise is screwed up tight enough.—
H. V. D. Sweet, Cherry Valley Garage, Cherry Valley, N. Y.

NO. 2273—BATTERY DISCHARGE BOARD

A discharge board for discharging a storage battery at any desired rate is made with a number of coils of resistance wire, any one or more of which may be thrown into the circuit by means of individual knife switches at the base of each coil. The coils vary in size from stove-pipe wire to heavy telephone wire and that part of the board back of the coils should be covered with asbestos as the coils get very hot. An ammeter and a shunt register the discharge, which may be varied by cutting in the different coils. A voltmeter with two prods is attached to the board and this is used for checking up the voltage of the individual cells at short intervals. The heavy leads may be made from old leads or cables from a car.-R. C. Morris, Wills Storage Battery Mfg. Co., San Marcos,

NO. 2274—USE THIS INSTEAD OF A

Two stout wooden blocks inclined and grooved as shown in the illustration will do very well to run the front or rear end of a car on so that it can be raised off the floor. This does away with the necessity of a pit as the mechanic can easily reach under the car.—A. B. Pettefer, Queen City Auto & Truck Co., Springfield, Mo.

NO. 2275—AUTOMATIC TUBE DEFLATER

A little rig to hold down the valve stem and thus allow the air to escape from the tube is made out of a piece of spring steel and a small bolt or machine screw. A hole is drilled in the center of the spring and two elongated holes at the ends, these end holes being of such a diameter that they will easily go over the valve stem. The natural shape of the spring is made so that the holes pull apart. Therefore, when the spring is squeezed together, the holes line up, the stem is slipped through with the machine screw holding the valve stem down. When the hand releases the spring, the sides pull out and catch on the threads of the stem, holding the device in that position.—C. Roeske, Chicago.

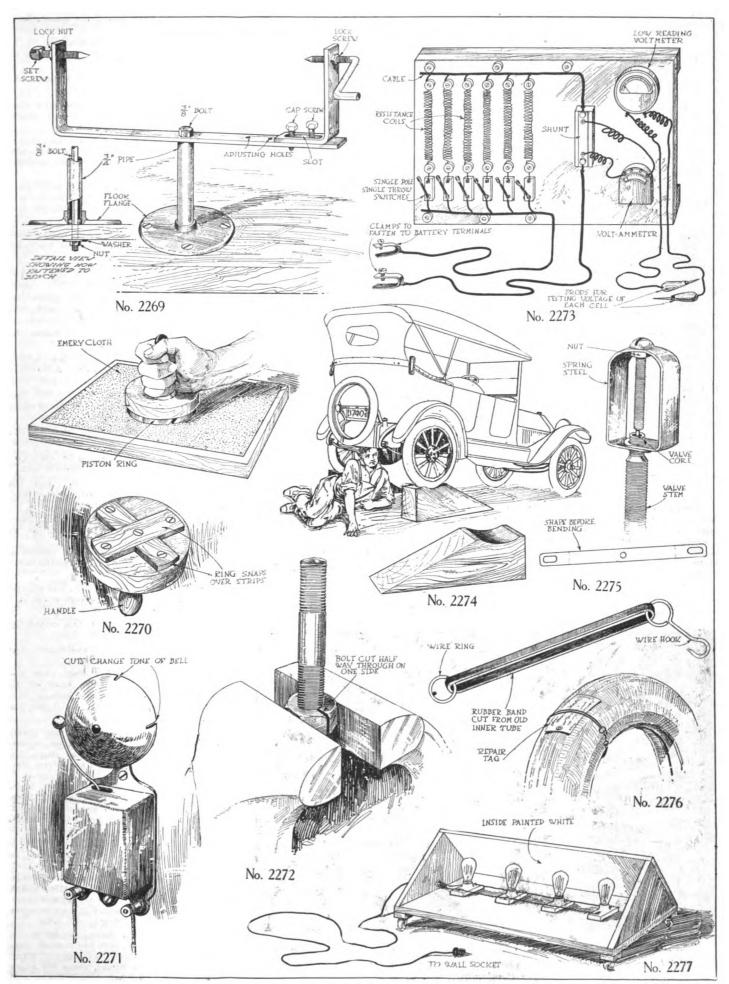
NO. 2276—TAGGING TIRE REPAIRS

A handy way to tag casings that are to be vulcanized is to cut a number of rubber bands from an old inner tube and fit them with wire rings and hooks similar to the ones shown in the illustration. These can then be hooked around the casings with the tags under the rubbers which will hold them quite securely. This is a great advantage over wiring tags on, as the wire will not move readily to allow for repair operations on the casings.—W. J. Zeglis, Gates Half-Sole Tire Service Station, Kewanee, Ill.

NO. 2277—LIGHT FOR WASH RACK

If several lamp bulbs are mounted on a board and a reflector placed on top of the board, much after the fashion of footlights on a stage, the light will be thrown up on the parts to be washed and the result will be that all points under the car will be clearly seen. The inside of the reflector is painted white, which throws a better light than a metallic surface. Castors under the board allow the device to be pushed around easily and a long cord with a plug can be connected into any convenient lamp socket.—P. Wing, The Electric Garage, Elmira, N. Y.





RETAIL NEWS

MIDDLE WEST

Harry Musick Auto Co., Terre Haute, Ind., is now located at 719 Rose Court. It is specializing on Overland repairs.

Buffalo Tire Sales Co., Terre Haute, Ind., has opened for business at 1311 Wabash Avenue.

Terre Haute Tire Sales Co., Terre Haute, Ind., will open for business on Sept. 1.

Steinhart-Grieger Automobile Co., Terre Haute, Ind., will be succeeded by the E. W. Steinhart Terre Haute Co., Cadillac and Dodge distributer.

Edwin J. Donnie, Terre Haute, Ind., has opened a used car exchange at 923 Wabash Avenue.

The Columbia Maintenance Co., Terre Haute, Ind., has opened a battery station at 313 Ohio Street. O. W. Pendergast is the manager.

Rousch Motor Car Co., Terre Haute, Ind., has succeeded the J. T. Rousch garage.

Walker Two Tread Tire Co., Terre Haute, Ind., has opened for business at 1238-40 Wabash Avenue.

C. F. Cox, Champaign, Ill., has opened a tire shop.

L. D. Daley, Champaign, Ill., has opened a Gates half-sole station.

H. M. Spang, Terre Haute, Ind., has been appointed manager of the Champaign office of the E. B. Collins Co.

Champaign Rubber Works, Terre Haute, Ind., has opened for business at 324 North Neil Street.

Perfection Sales Co., Champaign, Ill., A. M. Davis, manager, has opened a service station and salesroom at 111 West Church Street.

is now located at 206 East Main Street.

opened a salesroom at 106 West University Avenue

opened for business at 412 Ohio Street.

pointed sales manager for the Kimrey Co.

Kizer Reynolds Co., Mattoon, Ill., has opened its new service and sales building at 1421 to 1425 Broadway.

Central Illinois Battery Co., Mattoon, Ill., has taken the Willard agency for this territorv.

pointed service manager for Nickels Bros. Co.

Urbana Tire Shop, Urbana, Ill., has opened for business at 105 North Market.

a repair shop.

Mallory Auto Co.; Mattoon, Ill., Overland distributer, has opened a new service station.

More Mileage Tire Co., Mattoon, Ill., has taken on the distribution of Gates half-sole tires for this territory.

baker Agency; Earl Jacques, Chalmers and Maxwell distributer; Vigo Auto Co., Chevrolet dealers, and Gordon Morris, Buick distributer, are all located at Seventh and Mulberry streets.

Thorpe-Amerman Motor Co., Urbana, Ill.,

Twin City Tire Co., Champaign, Ill., has

Wabash Tire Shop, Terre Haute, Ind., has

C. B. Willis, Mattoon, Ill., has been ap-

A. V. Cory, Charleston, Ill., has been ap-

Anton Opoika. Champaign, Ill., has opened

H. C. Junker, Mattoon, Ill., has opened a repair shop at 2011 Western Avenue.

Wm. A. Engels, Terre Haute, Ind., Stude-

J. Locser, 125 South Seventh Street, Terre Haute, Ind., is giving up the sale of tires and will sell accessories exclusively.

This Made 'Em Stop



Dressing windows to command attention is no easy task, but Ballou & Wright hit the mark in this display in a 10 by 12 ft. window at the store in Portland. Ore.

Metropolitan Auto Co., Terre Haute, Ind., has taken the agency for the Huffman truck.

Hood Tire Shop, Terre Haute, Ind., J. J. Carney manager, has opened for business at 116 North Seventh Street.

Terre Haute Tire Co., Terre Haute, Ind., will open Sept. 1 at 16 South Seventh Street.

Twenty-Twenty Tire & Vulcanizing Co., Terre Haute, Ind., is now located at 17 South Seventh Street.

The Metropolitan Auto Motor Co., Terre Haute, Ind., has increased the capital stock to \$200,000, divided equally between common and preferred.

The Auto Motor Co., Terre Haute, Ind., has closed contracts for the agencies for the Jumbo, the Huffman, the Commerce and the Gramm-Bernstein.

Floyd Ford, Paris, Ill., has opened an accessory and tire service station on the west side of the Square.

Wolf's Hardware Co., Paris, Ill., has added an automobile accessory department.

H. W. Morris, Paris, Ill., has taken the agency for U.S. L. batteries and will operate as the Paris Electric Service Co.

Boyle's Garage, Paris, Ill., has taken the agency for the Monroe car.

J. S. Boyle, Paris, Ill., has opened an accessory shop under the name of the Auto Supply Co.

Peyton Motor Sales Co., Danville, Ill., has succeeded to the business of the Peyton Garage Co.

The Massey Pfundstein Co., Danville, Ill., has opened a retail and wholesale tire depot.

Vermillon Tire & Vulcanizing Co., Danville, Ill., is now located at 121 West Main Street.

H. F. Runyan, Danville, Ill., and his brother have opened a service station and garage at 223 West Main Street.

Vermillion Tire & Vulcanizing Co., Danville, Ill., has opened a service station at 121 West Main Street.

E. J. Spray, Danville, Ill., has opened a service and sales station at 38 North Jackson Street.

Walter W. Moore, Danville, Ill., has opened a tire sales depot and vulcanizing shop at 7 East North Street.

Powell Garage. Danville, Ill., has opened for business at 22 East Harrison Street.

H. & D. Service Station, Danville, Ill., has opened at 38 North Walnut Street.

Ernest Potts, Northville, Mich., has secured the former blacksmith shop of L. Hirsch and will remodel it as a garage. His Church Street garage is too small for his business.

Glen Sherwood, Owosso, Mich., has taken over the Phillips & Taylor Building, where he will open a garage and repair shop. He was formerly in charge of the service department of the Jackson Packard agents.

Elmer W. Jones & Clayton C. Frei, Marquette, Mich., agents for the Ford, will soon occupy a salesroom and garage on West Spring Street, owned by the Adams estate. The building is being remodeled.

NORTHWEST

The Northern Auto Electric Co., Seattle. Wash., agent for the Exide battery, has moved to its new quarters at Summit Avenue and Pike Street, where it has capacity for charging 300 batteries at one time.

C. M. Gobie, Seattle, Wash., has taken the Scripps-Booth agency, and has opened temporary quarters at Bayley's Garage at Third Avenue and Virginia Street, under the name of Goble Motor Car Co.

C. M. Harrison Co., Portland, Ore., has taken the agency for Swinehart tires.

W. L. Eaton, Seattle, Wash., Dodge car and Republic truck distributer, has recently moved to a new home at Twelfth Avenue and East Pike Street.

D. T. Goodwin, Heppner, Ore., has purchased a half interest in the Vaughn & Son garage. Business will continue under the old name.

Munnell-Sherrill, Portland, Ore., is the Mohawk distributer.

SOUTHWEST

The Harvey Motors Co., Dallas, Tex., has been chartered with \$50,000 capital stock by H. A. Harvey, Howard Harvey and L. E. Harvey.

D. H. Huntington, Topeka, Kan., has leased three lots for 99 years at the corner of Fifth and Quincy Streets, on which he will erect a filling station. The lots are 75 x 100 ft., and the rear will be used for a parking station.

The Tulsa Automobile Corp., Tulsa, Okia., manufacturer of the Tulsa Four, has been dissolved and reorganized as the Tulsa Auto Manufacturing Co., with a capital stock of \$500,000. The new firm will start the manufacture of cars immediately, turning out on an average of twelve daily.

John Baade & Joseph Colombo, Leaven-worth, Kan., have opened a repair shop.

S. B. Weidner, Ottawa, Kan., manager of the Ottawa Motor Sales Co., has purchased the interest of John Nelson, and the firm will be known as the Weidner Motor Co.

The Newkirk Garage, Newkirk, Okla., is being remodeled and enlarged.

The Prest-O-Lite Battery Co. has established a service station in Fort Worth, Tex., to be known as the Texas Battery & Starter Co., under the management of R. H. Dyer.

The Jackson-Neff Motor Co., Beaumont. Tex., has taken over the Dodge agency in this territory.

The McPhail Motor Co., Pawhuska. Okla., has been chartered with \$60,000 capital stock by C. L. McPhail, L. L. Davis and Thos. E. Calvin.

The Goodyear Tire & Rubber Co., Salina, Kan., is making plans for a new office and warehouse. A three-story building will be erected, with the warehouse in conjunction with the offices.

The Hawley Motor Co., Marshall, Tex., has a new building under construction.

The Shinn Auto Supply Co., Chanute, Kan., has sold the accessory business to Gilmore Bros. of Topeka, Kan., who will take charge.

Cale & Ketchersid Motor Co., Herington, Kan., is a new firm to handle Essex and Oldsmobile cars, organized by Wm. T. Cole and Knight Ketchersid.

The McGhee Rubber Co., of Texas, which has branch houses in Dallas, San Antonio and other points, has leased a building in Fort Worth.

The Fayette Garage, Fayette, Mo., has been changed to the Denny Motor Co.

The Hampel Auto Co., Hutchinson, Kan., has purchased a new 90-ft. lot on Second Avenue and will erect a three-story building. The company is also erecting a building in Salina.

W. C. Wainscott, Wichita, Kan., has opened his new Sunflower Auto Repair & Sales Co. business at 222 South Market Street.

A. P. Geller, Ste. Geneveive, Mo., has opened a repair shop.



Untangling Traffic and Boosting Business

A novel way to help the home town, at the same time creating favorable publicity for an article they sell, is being worked out in Philadelphia by Gaul, Derr & Shearer Co. It is the custom there to park automobiles in the center of Broad Street. Invariably owners leave their cars at angles which fail to economize space and which make it hard for late comers to get into the parking area. So the Gaul-Derr-Shearer outfit sends a man out in the block on which it is located to swing the cars into alignment. Here he is on the job, labelled so that he who runs may read

The Southwestern Battery Service Station, Hutchinson, Kan., has opened for business.

Scott & Williams, Bunceton, Mo., have sold their building to the Bunceton Auto Co., agents for Ford cars and Fordson tractors.

CANADA

C. M. Carruthers & Don F. Bolster, Regina, Sask., are opening a hardware, sporting goods and motor accessories store in the Darke Block under the name of the Capital Hardware & Sporting Goods Co.

L. M. Cochrane, Winnipeg, Man., formerly sales manager for the Winnipeg district of the Northern Electric Co., together with H. C. Stephenson, also formerly of that company, have formed the firm of Cochrane, Stephenson & Co., Ltd., with offices at 602 Avenue Block, to deal exclusively with the jobbing trade in the handling of automotive equipment and electrical material.

The Shaver Co-operative Motor Co., Ltd., Chilliwack, B. C., has been incorporated with a capital of \$50,000. It is handling cars, trucks, and a general line of automotive equipment.

The Convertible Co., manufacturing the Megow convertible tractor and tractor attachment, will locate the Canadian factory at Goderich.

The MacLeod Co-operative Garage Association, Macleod, Alberta, has opened its repair and accessory department.

NEW GARAGES

Junction City, Ore.

J. F. Sellar (90 x 100)......Portland, Ore.
Rossier & Matson (76 x 90) Bickleton, Wash.

H. W. Yenawine (54 x 138)...Seattle, Wash.

J. H. Garrett.......Klamath Falls, Ore.

M. Waryph........Philadelphia
Herrin Bros.......Tahlequah, Okla.

Hudson Auto Co. (50 x 132)

Arkansas City, Kan.

Jenkins & Scheer.......Poplar Bluff, Mo.
Clyde Young (150 x 404).....Copan, Okla.
William Bros......Quinton, Okla.
H. H. Mueller......Jackson, Mo.
H. D. Hanarker (80 x 150).Farmersville, Tex.
Currie, Gaston & Bryarly (90 x 180)

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Automotive Equipment

MAYALL ENGINE HEATER FOR FORDS

This is an electric heating device which keeps the water in the jackets of a Ford engine warm at all times, allowing easy starting and preventing freezing. The current is taken from any electric light socket, and the expense for current is said to run as low as \$2 per month when the device is used 10 hr. per night. The device replaces the inlet water pipe of the Ford and the heat is furnished by a "Nichrome" heating element. Price \$10.—John Miller & Son, Ltd., Montreal, Canada.

CYLINDER-HEAD LIFTERS

The device consists of a pair of threaded pieces similar to spark plug shells on the outside, the inside being threaded and having a threaded rod screwed through them, these rods having handles at the top. When the shells are screwed into the spark plug holes and the handles turned down, the cylinder head is raised by the action of the threaded rods. Made in %-in. and ½-in. pipe sizes. Price \$1.75 per pair.—John Millen & Son, Ltd., Montreal, Canada.

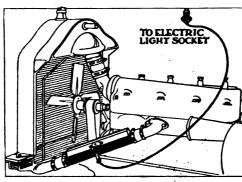
DUPLEX COMPRESSION TESTER

This is a device to be inserted in the spark plug hole to register the compression in pounds, so that leaky cylinders can be located. The shell is double ended, one end being threaded for ½-in. pipe thread and the other for S. A. E. A clamp nut or collar is threaded to the shell and either a Schrader or Twitchell tire gage is held to the shell with the collar. In operation, the device is placed





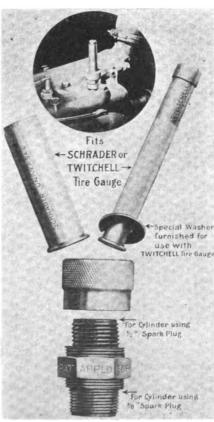
Cylinder-Head Lifters



Mayali Engine Heater



Drive Pin Punch Set



Duplex Compression Tester

in the spark plug hole of each of the cylinders in turn and the hand crank is turned with a swinging stroke, the amount of compression being registered by the tire gage. Price \$1, which does not include tire gage.—Casey Hudson Co., 357 East Ohio Street, Chicago.

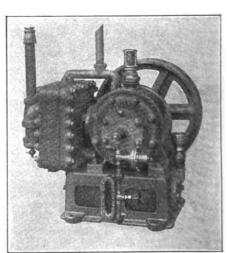
DRIVE PIN PUNCH SET

This is a set of punches for driving pins in and out, the lower part of each punch being parallel so that the driving force can be effective for the full length of the business part of the tool. Diameters are 1/4, 5/32, 3/16, 7/32 and 1/4 in. Each punch is 4 in. long. Furnished complete with box and cover. Price \$1.20.—West Haven Mfg. Co., West Haven, Conn.

JACKSON ROTARY GARAGE COMPRESSOR

This is a new type air compressor, the design of which saves considerable floor space and weight. The use of valves is practically done away with.

as there is only one valve. which is simply inserted to reduce the power necessary to drive the machine. The oiling system is simple, there being only one place to put oil, and an automatic valve controls the feed of oil to both compressor and bearings. It is of the circulating type. Hyatt bearings are used in the construction. Capacity 11 cu. ft. of free air per min. compressed to 100 lb. gage. Pulley 31/4 in. wide, weight boxed for ahipping 300 lb., equipment of spanner wrench and valve wrenches. Price \$150-Jackson Compressor Co., Inc., South Cherokee Street and Cedar Avenue, Den-



Jackson Rotary Garage Compressor

When Should the Shows Be Held?

(Continued from page 13)

of creating considerable interest in the minds of the automobile buying public. Of course, they are prinicpally dealers' shows and put new life and new thought into dealers after a hard winter. It sends them back home with a boost for their own local show and a keen desire to get out and get busy.

If I were a retailer, I believe I could see a greater advantage in a spring show than a fall show. I would be much more

in favor of a March show than one in January.

HUPP Motor Car Corp., by O. C. Hutchinson, general sales manager.—The manufacturer must look at the shows from a broader standpoint than the local situation. There is good business in the West and South after harvest, and the quiet time under normal conditions is November, December, January and February. Seasonal sales have been brought about through the production of new models at certain definite periods in the year. If there was no fixed date for bringing out a new type of car, and if every manufacturer made changes in his cars whenever it was advisable or necessary, the matter of seasonal sales would not cut the figure that it does now.

One must remember that the New York and Chicago shows are not the only shows held; that beginning with the New York show, there is a succession of local exhibitions running clear through until March, and the dates have been arranged so that they do not conflict—so that factory executives and representatives can be in attendance, and it is perfectly proper that the first show of each year should be given in New York, where there is the largest single market. It would be impossible to start the show season in New York in February or March and then continue with the other shows because that would carry them into May, when nobody wants a show and when there is

no necessity for it.

I believe that the national shows, supplemented by local shows, afford more stimulus to the trade than any other possible feature and I believe that the New York show should open as at present along the first week in January. This is the quiet time with the manufacturer when a larger attendance of factory men can be had without interruption of business and it comes at a logical time to interest the buyer.

It might be necessary or advisable for the dealers in New York, Chicago, Boston and other important points to hold closed car shows late in the fall, but in view of the fact that the demand for closed cars is steadily increasing and that such types will be and are sold every month in the year, I cannot see the necessity of a closed car show in advance of the New

York show.

If the local trade associations were to hold these shows each year in advance of the national and local shows, it would simply mean that prospective buyers of closed cars would hold off until

they could have the opportunity of seeing the new models at these shows and the closed car business would be more of a seasonal business than at the present time.

From the standpoint of the manufacturers, which means as well from the standpoint of the dealer, I believe that the best time of the year is as at present; that more interest generally will be had and more real business will result than to change the date either to an earlier or later time.

DORRIS Motor Car Co., by Webster Colburn, vice-president and general manager.—We believe that the midwinter show is entirely wrong. The writer has felt for years that shows should be held in the early fall during the good weather so that sales would be stimulated during the dull season. If a one-show year is to be held, the writer is very much in favor of a fall show. Much advantage would be secured by having two shows—fall and spring.

STANDARD PARTS Co., by Christian Girl, president, also second vice-president of the Motor & Accessory Manufacturers' Association.—Automobile shows have been tried in the fall and have fallen short; true, in 1917 when it was held in the late fall a panic struck the country at about that time, leaving a bad taste. In our opinion a show in the early spring is entirely too late for dealers, distributers, etc. A show in the fall is too late for dealers, distributers, etc. A show in the fall is too late for dealers, distributers, etc., and do not feel, at that time, the call of the outdoors; they feel, rather, the call of the indoors.

It seems to me that January is the logical time for automobile shows. People are looking forward to spring; it takes them some time to make up their mind—first, as to buying a car; second, as to what car to buy. It gives the dealer with foresight an opportunity to make his arrangements and get ready for the trade that comes along the latter part of March and April. It also gives the prospective buyer a chance to look over the field and get ready to pay for the priced car he will buy when the spring fever strikes him. Therefore, I believe the present arrangement of holding shows in January and February is the best possible arrangement.

The keynote of the show's utility is sounded by Chester I. Campbell, manager of the Boston exposition, who declares that the annual automobile show, with its enthusiasm and publicity, does more to change prospects into buyers than any other force known to the industry.

Campbell is one of a number of show directors who have voiced opinions, and the expressions of distributers and dealers are legion. They will be chronicled as the discussion progresses.

Moline Iron Works Succeed Cooper

MOLINE, ILL., Aug. 29—The H. W. Cooper Saddlery Hardware Mfg. Co. has changed its name to the Moline Iron Works. The company has added a line of automobile accessories to its regular lines of saddlery hardware and malleable iron castings. New factory buildings being erected will double the output.

C. J. and H. W. Cooper, the original founders of the business in 1879, are etiring from active work, but retain a large interest in the business. The following officers have been elected for the coming year: President, L. E. Nutt; vice-president, J. J. Creedon; treasurer, J. T. Miles, and secretary, L. H. Dorman.



Cletrac pulling General Pershing's Locomobile out of the mud near Romarantin,
France

10 WINDOWS THAT WILI









A Letter and a Reply

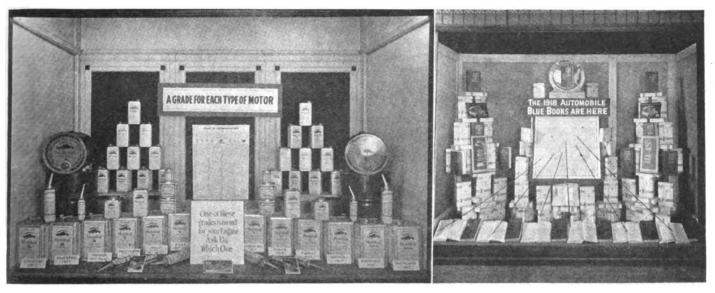
wholesale and retail dealers in automobile accessories. We try to be up to date in this line, therefore we are desirous of obtaining ideas in the way of displaying merchandise in the store and also in the windows. Perhaps you have pictures which would help us. We would appreciate very much any material which you could furnish us in regard to the above matter.—Auto Supply Co., Mason City, Ia.

The Reply

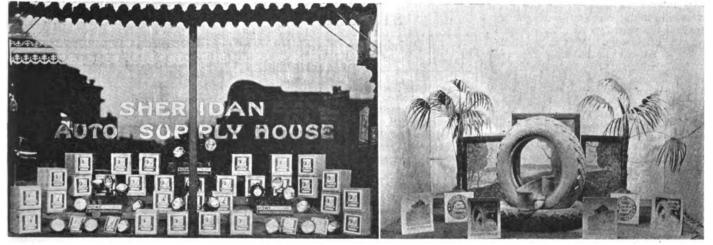
The accompanying group of pictures shows window displays ranging from tires to spark plugs and Blue Books, all eloquent promoters of the products they represent. Above are a tire and accessories window and one suggesting brightening up the car for a season in the open. To the left are a Champion spark plug "set-up" and a Prest-O-Lite display, the latter, by utilizing attractive cards, making up for lack of show qualities in the goods themselves.

One of the best ways to study windows is to study good windows that are used by people in other lines of business. For example, if you will look over one of the good windows by one of the department stores in your city you will find that they place certain large and heavy articles in certain locations, and fill in with a certain number of smaller articles. Invariably they never crowd the window, and they very often use price tags and little mottos on cards.

BRING YOU BUSINESS



On first thought, oils might seem to offer little opportunity for display, but one dcaler made an attractive window out of cans and kegs. Another, utilizing a map in conjunction with the books, "put over" a business getter for the Automobile Blue Book



The four windows shown above and below brought commandingly to public attention spotlights, tires and tire repair outfits. Note the effective use of containers in the displays above, on the left, and below, on the right



News Letters From Trade Centers

PORTLAND

Show at State Fair

PORTLAND, ORE., Aug. 26—Under the auspices of the Dealers' Motor Car Association of Oregon, an automobile and truck show will be held at the coming Oregon State Fair at Salem, Sept. 21 to 27 inclusive. Arrangements are in charge of a committee composed of A. B. Manley, chairman; C. M. Menzies, secretary; H. H. Eling, treasurer; Howard M. Covey and M. O. Wilkins, with Mr. Wilkins as show manager.

The old machinery hall on the state fair grounds, which has 125 x 200 ft. of floor space, has been leased for the show. There will be about 30 firms represented, with 75 cars and trucks on the floor.

An interesting example of the great increase in motor cars in the Oregon territory in the past few months is seen in the case of Albany. With a population of 5000, Albany is building five new garages, which will just double its garage capacity. Either building or under contract are garage buildings for the Day Motor Co., Ralston Motor Car Co., Murphy Motor Co., Kirk-McKern Co. and Rousseau & Archibald.

W. H. Goodwin, Oregon territory man for the Portland branch of the Ford Motor Co., has been transferred to Seattle as assistant manager of the Ford branch there. The new manager of the Seattle branch is W. S. McNamara, just transferred to that post from manager of the Portland branch. Mr. McNamara is succeeded in Portland by Stephen A. Stellwagen, of Detroit.

The Charles C. Fagan Co., Inc., Portland, Ore., distributer in Oregon for the Pierce-Arrow, has removed to a new \$60,000 building.

A. E. Fernald, for the past several years manager of the commercial car division of the Willys-Overland Co., at Toledo, Ohio, has come west to take charge of all Willys-Overland publicity for the Pacific coast. His office headquarters will be at San Francisco.

Vick Bros., of Salem, Ore., state distributers for the Fordson tractor, have let the contract for immediate erection on a 100 x 100 ft. site in Portland of a 2-story brick and concrete building exclusively for Fordson tractors and service. The building will be rushed so it may be occupied this fall.

S. D. Bornstein has opened the Bornstein Service Station, to combine garage

and motor car service work. O. S. Peabody is manager.

The C. L. Boss Automobile Co. has acquired a 60 x 200 ft. site immediately to the rear of its present quarters and will erect a 2-story addition. This firm handles the Hudson, Essex and Chalmers lines for the state of Oregon, and the Maxwell for the Portland territory. Most of the new building will be devoted to service facilities for these cars, with a complete machine shop occupying the second floor.

The Day Motor Co. has been formed at Albany, Ore., by Earl R. Day, Clarence Collins and Kenneth Carter to handle Overland and Nash cars and Federal trucks.

The W. H. Wallingford Co., Liberty and Premier distributer, will move soon into a new 2-story brick building, 100 x 150 ft., at Burnside and Fifteenth streets.

ST. LOUIS

Driving on Trucks

ST. LOUIS, MO., Aug. 29—Dealers here are making a drive on trucks, and the demand continues to improve. The passenger car situation is generally pretty bad, dealers getting farther behind than ever in their deliveries.

The Traffic Motor Truck Corp. is preparing a film to show the advantages of the truck to the farmer, and to point out graphically how the truck has brought the farmer closer to the city market. The film includes scenes of the making of Traffic Trucks.

The one-hour parking law for motor cars in the congested district is now being enforced. On the first day, the arrests totalled 181, and a fine of \$3 was assessed against each offender.

A 4-story fireproof building will be erected at the northwest corner of Leffingwell Avenue and Locust Street for the St. Louis Motor Car Co., Jordan, Mitchell and Saxon distributer. The new building will be ready for occupancy about Jan. 1.

The Bishop Truck & Tractor Co., distributer of the Stewart, Sandow and Briscoe trucks, will occupy the western portion of the building to be vacated by the McQuay-Norris Co., whose new factory at Cooper Street and Southwest Avenue will be ready about Oct. 1.

Ollie Knight has joined the forces of the Automotive Electrical Service Co., Inc., sales and service distributer for the Stromberg carbureter. Zone headquarters for the Maxwell Motor Sales Corp. and the Chalmers Motor Car Co. have been established in the Ohio Building, with I. O. Taft, supervisor in charge. His territory will consist of Illinois, Missouri, Kentucky, Arkansas, Tennessee, Alabama, Mississippi, Louisiana and East Texas.

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James C. Smith has been made manager of the St. Louis branch of the International Mack Corp., succeeding Howard C. Bailey, who has been transferred to the advertising department of the Mack factory in New York. Smith joined the Mack forces here early in the year after having been discharged from service. Previously he was manager of the Mack branch at Duluth, Minn. Bailey will take a vacation before assuming his new duties.

The Byrnes Rubber Co., a subsidiary of the Byrnes Belting Co., has been formed to distribute the Hewitt tires and inner tubes in Missouri, Kansas, Oklahoma and Southern Illinois.

Victor A. Von Arx has reorganized the Von Arx Automobile Co., Winton distributer, with himself as president, Oscar G. Roeder, secretary and Treasurer, and Charles H. Diel, vice-president. L. G. Schubert recently retired from the business.

John Voltz has joined the force of the Vesta battery branch here, having just returned from military service overseas.

W. C. Rapp, who served fourteen months as a lieutenant in the Motor Transport Corps, has rejoined the sales force of the Auto Devices Co. Lacy H. Ware is also connected with this company's sales force.

Elwood Bergen has joined Julius Fahlkamp, operating a motor car repair shop at 4111 Lexington Avenue.

DES MOINES

Dealer Changes

WATERLOO, IOWA, Aug. 29—The Cramer Motor Co. has taken on the Oldsmobile line, both passenger cars and trucks.

The Waterloo-Buick Co. is a new concern which has been organized to handle Buick sales here, and the West Motor Sales Co. which formerly handled the Buick has taken the Nash. The Union Motor Car Co. has added the Studebaker. The Waterloo-Nash Co. has added the Republic truck and Stephens cars.



The Transport truck has been taken on by the Waterloo Auto & Supply Co., which also handles the Oakland car.

The Peverill Mour Sales Co. expects to move into its new building by Nov. 1. The Peverill company distributes Hudson. Essex and Dodge.

Waterloo motor car and truck dealers are making preparations for their annual fall show which will be held in connection with the Waterloo Dairy Cattle Congress and the Belgian Horse Show. The motor car exhibit will be in charge of the Black Hawk County Motor Trades Bureau of which C. A. Clark is president and Verne Orr secretary.

NEW ORLEANS Trading with South America

NEW ORLEANS, LA., Aug. 28—Due to increasing demand for automobiles, electrical equipment for cars and other electrical installation and outfitting from Central and South America, the Interstate Electric Co. has announced plans for the construction of three business buildings in as many different sections of this city, involving an expenditure of \$1,725,000. In addition to this the company has purchased the two-story concrete building adjoining its present headquarters at Lafayette and Dryades streets, now occupied by the White Brothers Truck Co. and that building will be occupied by an exclusive export car and electrical equipment branch.

Of the three other buildings to be erected immediately, one, a three-story structure, costing \$45,000, will be built at 1754 St. Charles Avenue, to be used exclusively for battery and tire service; another, ten stories in height, is to be put up at Carroll and Carondolet streets and will be kept as an office building and general headquarters of the company. The third will be a fifteen-story structure at Baronne and Girod streets, on the site now occupied by the United States Rubber Co. Work on this last-named building will commence Jan. 1, 1920. Work on the others will commence at once.

Crawford, Henkins & Booth have added the Gardner car in this territory. This car is soon to be put on the market by the Gardner Motor Car Co. of St. Louis. The car will sell at approximately \$1,100. Crawford, Jenkins & Booth also distribute the Paige and Jordan cars.

The Hanemann Motor Co. recently organized, has leased the building at Union and Dryades streets and is establishing a complete garage for electric cars with a capacity for 50 cars a day. The company has the exclusive agency here for the Ward Motor Vehicle Co. of Mt. Vernon, N. Y., and for several tractor companies.

Automotive mechanics is being given special attention at the six months course of technical training for soldiers, just opened at Tulane University. The course

is under the direction of the war department and is exclusively for soldiers.

Hints of a price war between the three companies which supply most of the gasoline used by Louisiana motorists are contained in a reduction of one cent a gallon, from 25 cents to 24 cents, made Aug. 18 by the Standard Oil Co. of Louisiana, the Texas Oil Co. and the Gulf Refining Co. This is the first reduction in price since gasoline dropped from 27 to 23 cents here in April, during a rate war between the three companies.

Duggan, Inc., a recently organized firm of dealers has obtained the agency for Gary Trucks.

Richard H. Lee, special counsel for the Associated Advertising Clubs of the World, will discuss the advertising of patented and secret processes for the rebuilding of tires, at the fifteenth annual convention of the clubs in New Orleans, Sept. 21-25.

The recently formed Aero Club of New Orleans, has incorporated for \$300,000, and is planning to obtain a tract of land fronting on Lake Ponchartrain, suitable for a landing field for both land and naval machines.

The Louisiana-Mississippi Automotive Trades Association is gathering data and investigating the possibility of establishing motor truck transportation lines from the agricultural and truck-farming sections of both states to the central market towns of each.

BOSTON

Finances Car Dealers

BOSTON, Aug. 29—Chester I. Campbell, mangaer of the Boston Motor shows, is actively identified in forming a corporation that will handle the paper for motor dealers throughout New England. He will be president.

Several other such corporations have been formed in Boston recently to handle motor paper, and the latest one to get going is the National Acceptance Corp., a \$5,000,000 concern under Edward C. Boyce, who was president of the Metz Co., while the government had charge of it. On the board of directors is Eugene W. Lewis, formerly with the Timken-Detroit Axle Co.

The Commercial Finance Corp., formed some months ago, has F. A. Hinchcliffe, treasurer of the Boston Automobile Dealers Association, and agent for the Jordan line; also John L. Judd, who has the Allen car and several trucks, as members of the Board of Directors.

The Noma car has joined the Boston colony. E. C. Acker, formerly production manager of Gray & Davis, who now heads the New England Motors Co., has taken the distribution for the New England territory with salesrooms on Brighton Avenue.

A. C. Merrill has been sent to Boston to manage the New England branch of the Bearings Service Co.

LaLime and Partridge, one of the Ford agencies in Boston, have just moved into a new building in the Fenway at 1255 Boylston Street.

Otto A. Lawton, distributer of Franklin cars for New England, has moved on Commonwealth Avenue. It was in this building that Franklin cars were marketed until the war broke out when Lawton combined his sales with his service department on Beacon Street.

The New York & New England Freight & Storage Co. has been formed in Boston with headquarters at 584 Commonwealth Avenue. It will do a long distance trucking business between New York and Boston. F. L. Z. Caracristi, formerly with the Ford company here, is treasurer and general manager.

NEW YORK Stirred Over Shows

NEW YORK, Aug. 30—Distributers and dealers here are holding frequent conferences on the show proposition, with evidence that there is considerable dissatisfaction with the dates of the metropolitan passenger car and truck shows scheduled by the National Automobile Chamber of Commerce, and the location selected for the commercial vehicle exposition.

The agitation for a closed car show in the fall, which has been quiescent for some time, has been revived, and it is understood the dealers will take a poll shortly after Labor Day to determine whether the display is to be held. Several firms are actively canvassing sentiment for such a show, believing that it would serve to give winter business a big start, and that, from the sales standpoint, it would make up for some of the loss of merchandising which dealers anticipate through holding the N. A. C. C. show the first week in January, rather than at a date nearer spring.

Discussion of the truck show has developed an expression of opinion on the part of many dealers and some factory managers as well that the building obtained by the N. A. C. C., the Eighth Coast Artillery Regiment Armory, in The Bronx, is too far uptown to give much chance of a successful exposition. The location is thirty minutes by subway from the Grand Central Palace, where the passenger car show is to be held, and is several miles from the principal New York business centers. Several dealers have voiced the opinion that the remote site will more than offset the advantage of having the truck display simultaneously with the car show, while others have shown a disinclination to take space. holding to the hope that a more central site might be obtained.

Officials of the Dort Motor Car Co. came here from Flint, Mich., last week to attend the formal opening of the factory branch and met dealers of the metropolitan distribution district at luncheon at the Hotel Astor.

KANSAS CITY

Preparing for Shows

KANSAS CITY, MO., Aug. 30—Motor car dealers and garagemen of the Kansas City territory are commenting on the comparatively small amount of touring being done this year. One Kansas town that has three main-traveled routes reports scarcely 10 per cent of the usual volume of touring.

There is a vast amount of travel by motor car, however, over short distances. Dealers, commenting on the situation, point out that it is helpful, since the traffic shows the need for cars for short trips, and for business.

Kansas City truck dealers are preparing for the annual show, and hoping that arrangements can be made for an adequate display of trucks. Convention hall will be used for the purpose, if the passenger car show can be held in a temporary annex, or trucks will be located in the annex, where they can receive exclusive attention. It is generally felt that the truck and passenger car shows should be held at the same time and place. They are both under the auspices of the Motor Car Dealers' Association, which includes both passenger car and truck dealers.

The Chamber of Commerce is helping to promote the financing of a downtown garage which will accommodate 400 cars. The building is to cost around \$150,000.

The Indiana Silo & Tractor Co. is planning to erect a plant in North Kansas City, ground for which has been secured.

Joe L. Miller has moved into a twostory building, 66 x 96 ft., at 312-14 East Fifteenth Street.

MINNEAPOLIS

Has Fair Show

MINNEAPOLIS, Aug. 28—The annual automobile and tractor show at the Minnesota State Fair here will be the big event of the week. It will continue from Aug. 30 to Sept. 6. Walter Wilmot, manager for the Minneapolis Automobile Trade Association, was in charge of the show, which outran all space in the exhibition building devoted to automotive industries, and into outside buildings.

New companies that have opened in the past few days are: Minnesota, the Chandler-Cleveland Co., general office at Nicollet Avenue and Tenth Street and service station at 916 Second Avenue S.; the Columbia Motor Truck & Trailer Co., Northwestern factory branch, R. J. Cowley, manager, 105 Ninth Street S.; the Paul Jennings Tire Co., Gates half-sole tire, 1003 Nicollet Avenue; the Tower Motor Truck Co., factory

branch at 25 Seventh Street N., W. M. Vreeland, district representative; the Continental Motor Co., Minnesota branch, 39 Eleventh Street S., J. M. Howe, formerly Baldwin Chain Mfg. Co., as manager. and the Automobile Insurance Association of America, mutual organization, incorporated with liability limit of \$200 .-000 by F. J. McCracken of Slayton, Minn., president; William Winkelman of Lohrville, Iowa, vice-president; C. E. Howard of Minneapolis, secretary-treasurer. The Guaranty Banking Corp., Chicago, has opened at 707 Andrus Bldg. with R. B. Simning, former assistant secretary Minneapolis Automobile Trade Association, as district representative. The Zenith Automobile Supply Co. has been incorporated at \$10,000 with Cecil A. Cahoon as president. The Pure Oil Co. has opened an oiling and greasing station at 715 Marquette Avenue in charge of Earnest Nagle and Leonard Taylor. It is new to the Northwest.

New motor car distributers are: Hollier, Carlson & Wickham, Inc., 1116 Hennepin Avenue; Moon, Allen Motor Car Co., 1619 Hennepin Avenue; Dixie, Wood Motor Co., 120 Tenth Street, S.; Hamlin & Holmes, Larsen & Woodbridge, 640 McKnight Bldg; Henry Perfectfit, 640 McKnight Bldg; Henry Perfectfy branch of Henry J. DeWitz Co., 42 East Hennepin Avenue, Carl C. Brertenbach, manager.

MILWAUKEE

Has Little Labor Trouble

MILWAUKEE, Aug. 29—The organization of a local of the Automobile Workers' Union in Milwaukee during August has resulted in a few outcroppings of labor trouble, but so far the disputes have been confined to factories and have been few. Part of the force of the Kissel Kar Co.'s service station walked out during the week, but most of the men are now back at work. The W. S. Seaman Co., body builder, is experiencing strike troubles.

The Van Etta Motor Sales Co. has been organized to act as distributer of the Stutz in Wisconsin. The officers are: president and general manager, James Van Etta; sales manager, A. E. Braden, formerly with the Hudson Motor Car Co.; service manager, J. E. Mehr, formerly of the F. W. D. Auto Co.

The Milwaukee Automobile Service Co. is a new corporation formed with \$50,000 capital by Erwin Mohr, Richard McDonald and Herbert Henderson to engage in the repair business.

The Osmond-Kemler Co., Madison, Wis., distributer of the Maxwell and Chalmers, has taken on the Federal truck for the southwestern Wisconsin territory. The appointment of the Lester Bros. Motor Co., Madison, as dealer in Madison and vicinity, is announced. This firm is composed of Stark Lester and Louis Lester.

Daniel Baer, formerly of the Lincoln

Motor Car Co. and Charles Pautsch, both of Milwaukee, have become state distributers of the Kargo-Lung carbureter attachment and have opened salesrooms and offices at 397 Atwater Road.

S. T. Wessel has been made district manager for Southwestern Wisconsin, with headquarters at Madison, for the Nash Sales Co., 455-459 Broadway, general distributer of the Nash. Mr. Wessel was with the Buick for ten years.

PHILADELPHIA

Demand Remains High

PHILADELPHIA, Aug. 29—Sales and inquiries continue good in passenger car departments and truck and trailer, as well as farm tractor, sales are expected to receive an impetus from the numerous fairs and small automotive shows and farm demonstrations now taking place throughout the state or scheduled for the next month.

The Swain-Hickman Co., distributer of Republic trucks in this territory, is inaugurating a new service bureau at Harrisburg. George C. Eppelman, retal sales manager there, has announced that \$60,000 worth of parts are being carried, the combined inventory of the Philadelphia and Harrisburg repair parts stock approximating \$140,000. "Delivery counsel" and haulage experts are now at the service of customers.

Asserting that only certain ferryboats can carry heavily laden automobile trucks and that much delay is occasioned thereby, numerous complaints are being made about the ferry service to Camden by transportation companies and individual truck owners. The Chamber of Commerce of Philadelphia, through its bureau of transportation, is working with the ferry companies to find a means of preventing such blockades. Investigation this week has shown that the heaviest load, truck and contents combined, that any of the ferryboats can safely carry, is 21,280 pounds.

Highway Commissioner Sadler has issued orders to county road superintendents throughout the State to remove advertising signs from the 10,235 miles of State highway. He holds such displays come within the legal limits of a state route road law. The superintendents immediately remove these signs, some of which overhang the road and others of which are placed on poles and fences owned by the State. A statement issued by the department says that complaints have been received from travelers and tourists that some of the signs, imitative of the regular detour signs, have misled them in the night. Candidates' poster pictures and hotel sign : have especially been a nuisance.

The Pennsylvania Tire Stores Co. is starting a big campaign throughout the state in the interest of sales. A branch store has been opened at 89 North Main Street, Harrisburg.



INDIANAPOLIS OPENS ITS LARGEST SHOW

Ninety-eight Exhibitors Show Cars, Trucks and Accessories —Building Crowded

INDIANAPOLIS, Sept. 1 (Special Telegram)—The largest automobile show that Indianapolis ever has staged opened to-day in the new Manufacturers' Building at the State Fair grounds with ninety-eight exhibitors of motor cars, trucks and accessories. The automobile display is the most prominent feature of the state fair show. The building has 80,000 sq. ft. of space, all of which has been taken by dealers anxious to put their goods before the buying public.

The automobile show is being staged under the auspices of the Indianapolis Automobile Trade Association, with John B. Orman as manager. It was formally opened at noon to-day by an address by President Jordan of the Jordan Motor Car Co. of Cleveland. Dealers from every county of Indiana and their prospects saw the displays.

The exhibition will continue throughout the week.

SAXON PLANT BOUGHT

BY GENERAL MOTORS

DETROIT, Aug. 29-The General Motors Corp. has purchased the new plant of the Saxon Motor Car Corp. located at Springwells. General Motors officials state that it has not been definitely decided just what will be done at the Saxon plant. It is generally reported, however, that the Scripps-Booth will be manufactured there, as, for some time, Scripps-Booth production has been carried on in other units of the General Motors plants which are already overcrowded with their own products. The Saxon plant is not entirely vacated by the government, which has been using it for storage purposes. The Saxon Motor Car Co. is manufacturing in its Beaufait Avenue plant.

Mississippi Proves Good Roads Interest

JACKSON, MISS., Aug. 28—The campaign for good roads in Mississippi, which has been tremendously advanced by the organization of automobile dealers into the Louisiana-Mississippi Automotive Trades Association, is pressing steadily forward. In September, the voters of Warren county will pass on a bond issue of \$500,000 to be used in the construction of new highways, and Hinds county is issuing bonds for \$125,000, in addition to about half a million already issued, for the same purpose.

COLUMBUS SHOW HAS MANY CARS

COLUMBUS, OHIO, Aug. 30—The fall show of the Columbus Auto Show Co.

was held in conjunction with the annual Ohio State Fair Aug. 25-29.

In all 24 dealers or distributers showed 36 different lines of passenger cars. In addition eight truck and tractor dealers showed 11 different models. Many more tractors were displayed at other places on the grounds, generally with argricultural implement exhibits.

The crowds were much larger than ever before. The show was under the management of W. H. Payne, who recently returned to civil life after serving 14 months with the Motor Transport Corps in France.

The makes shown were: Packard, Ford, Chevrolet, Kissel, Monroe, Patterson, Apperson, Pierce, Reo, Chandler, Elcar, Nash, Grant, Peerless, Dodge, Haynes, Lexington, Velie, Briscoe, Oldsmobile, Hupmobile, Overland, Willys-Knight, Hudson, Essex, Franklin, Buick, Maxwell, Chalmers, Westcott, Studebaker, Allen, Paige, Marmon, National and Oakland.

The commercial makes shown were: Packard, Reo, Nash, Oldsmobile, International Harvester, Armleder, Federal, All-American, Stewart, Sterling, Republic, Tiffin, Traffic, Ohio Trailer, Lansing Industrial Truck and others.

New Ten Broeck Plans

LOUISVILLE, KY., Aug. 29—The Ten Broeck Tyre Co. here is equipping to build a fabric tire that will carry an 8000 mile guarantee. The company's distribution plans are changed from those of the past in that Ten Broeck tires hereafter will be marketed through dealers.

This decision was the result of a reorganization that followed the death of the former president, H. L. Lewman, and the resignation of the former manager, W. C. Lewman. Active management of the company now is in the hands of R. J. Garrene, vice-president and general manager, with Walter H. Grote, assistant general manager and factory superintendent, and W. Z. Nedden, general manager of sales. The new president is William Cox.

The plant is being equipped with new machinery and an over-sized type of mold and cord equipment is being installed. With the new equipment, the present production of 500 tires per day can be doubled by the middle of September. One of the features possessed by the plant is the cotton mill in which the fabric for the new tire is produced, as will be the cords for the cord pile that will follow.

Myton Running on Harrisburg Ticket

HARRISBURG, PA., Aug. 30—J. Clyde Myton, the genial and well-known secretary of the Harrisburg Motor Car Dealers' Association, has announced his candidacy for Sheriff of Harrisburg on the Democratic ticket. Myton has been identified with the automobile trade here for many years and has worked hard for betterments in conditions, co-operation and good laws.

BOYER'S FRONTENAC WINS AT UNIONTOWN

Milton in Duesenberg Out by Fire—Speed Was 96.4 Miles Per Hour

RESULTS AT UNIONTOWN

2:24:19:68
2:25:51:18
2:26:58:81
2:28:54:98
2:31:29:27
2:34:43:92
2:35:31:86
g2:37:07:68
2:28:54:54:54:54:55:231:29:55:31:35:31:55:3

UNIONTOWN, PA., Sept. 1 (Special Telegram)—Joe Boyer drove Gaston Chevrolet's Frontenac car to victory in the 225 mile autumn classic at the Uniontown Speedway here this afternoon. He made the grind in 2:24:19:68, at an average speed of 96.4 miles per hour. Flames bursting from Tommy Milton's Duesenberg car robbed him of first position in the 190th of the 200 laps, while he was driving three laps ahead of the field.

A broken connecting rod caused the fire that burned the machine. Milton and his mechanician, W. D. Kessler, escaped by jumping head first. Each sustained minor burns. While the crowd, estimated at from 40,000 to 50,000, gazed at the spectacular fire, Boyer romped home for the \$7,500 purse.

Roscoe Sarles, driving Ira Vail's Philbrin, came in for second money. Other winners in succession were: Louis Chevrolet, Frontenac; Ralph Mulford, Frontenac; Dave Lewis, Meteor; Art Klein, Peogeot; T. N. Nicholson, Hudson, and P. W. Monahan, Duesenberg. Sarles, Mulford, and Monahan made the 225 miles without a stop. Race followers considered this a remarkable achievement for such a distance.

The Speedway purse was \$14,000, while the Goodyear Tire & Rubber Co. put up \$5,000, and the Mason Tire & Rubber Co. \$10,000. Boyer, Sarles and Louis Chevrolet divided the Goodyear \$5,000, and Dave Lewis got the Mason \$10,000 purse.

The comparatively few stops at the pits seemed one of the remarkable features of the race. While three cars made it non-stop, Boyer, Louis Chevrolet and Tommy Milton made one trip each to the pits. Klein made six stops and Lewis five. All were for tire changes.

The heavy grind developed several weak spots in the wooden bowl. At one end of the curve a flag was projected through a gaping hole to warn drivers, but Louis Chevrolet soon knocked it off. Jimmy Murphy, Tommy Milton's teammate, worked his car in the qualification round but was slightly injured.

To-day's race was the longest ever held on the Uniontown course, all previous events having been of a distance of 112½ miles or less. No comparison was made by race officials with previous records.

Iowa Stages A Fair Show And Sells Cars and Trucks

Estimated That 250,000 Persons Crowded Machinery Hall —Exhibit Points the Way for Truck Sales to the Farmers—Dealers Are Pleased

DES MOINES, IOWA, Aug. 29—The annual motor show held here in connection with the Iowa State Fair during the last ten days, has drawn the biggest crowd that any motor show ever attracted in Iowa. As it was entirely free to the public, it was impossible to obtain any accurate attendance figures, but C. G. Van Vliet, the show manager, estimated that at least 250,000 persons saw it. The fair this year broke all records for attendance and it is believed that two out of every three persons who attended the fair also crowded into the motor exhibit.

The exhibit was handled by the state fair association in close co-operation with the Des Moines Automobile Dealers Association and the Des Moines Motor Truck Dealers Association. C. G. Van Vliet, one of the managers of the winter show, was in charge and was assisted in the management by Don Chemberlain, secretary of the truck dealers association.

It was held in Machinery Hall, a big steel and brick building with concrete floors that made a good place for a business show although it did not lend itself any too well to decoration. Three-fifths of the hall was used for automobile exhibits. Each exhibitor's space was 600 sq. ft. and, as the booth rental was on a basis of ten cents per square foot, the dealers feel they were well repaid.

There were forty-three passenger car lines exhibited, with seventy-eight cars on display. The motor truck exhibit almost equalled the showing of passenger cars with thirty-eight lines shown and a total number of sixty-six models. Nineteen exhibits of automotive equipment were shown. Only five tractors were on display in Machinery Hall, the greater number of tractor dealers having their exhibits in the open air. The tractors showing was the most successful in the history of the fair, and attracted larger interest than in former years.

Every Dealer Satisfied

The writer failed to find a dealer who was not satisfied with the show. There were many who pronounced it the best show, from a business standpoint, at which they had exhibited.

The Iowa fair is a farmers' fair and Iowa is an agricultural state. As the majority of the Des Moines dealers are distributers, the fair gave them an opportunity to get directly in touch with the farmer.

The farmer comes to this fair each year to see things and to ask questions. Without doubt, the show's greatest value

was its educational advantage. The winter show attracts the dealers but here was a show that brought in thousands of farmers every day, and, in Iowa, the farmers constitutes the biggest market for both passenger cars and trucks.

The show itself cost little for advertising. Individual dealers used the daily papers consistently for a week prior and during the show but the motor show figured in only a small amount of space in the general daily advertising for the fair. Machinery Hall occupies a position directly in front of the street car entrance to the grounds and the main walk leads directly to the building. Large signs were placed at the entrances and these were sufficient to bring in all the visitors that could be accommodated.

Fair attendants in Iowa like to have an early start and, along with the rest of the exhibitors, the motor car men were on the job at 7 o'clock in the morning and kept at it until 8 o'clock at night. With fifty or sixty thousand Iowans on the grounds each of the five big days of the fair, an audience was never lacking.

Truck Interest High

From what was said above about the educational advantages of the show, it should not be thought that it was lacking in actual sales. Although most of the dealers showing are confronted with a car shortage handicap, there were many actual sales made on the grounds. As an evidence, the Briscoe dealers sold the three cars in their booth and the purchasers tried to obtain delivery before the close of the fair but the managers refused to allow any cars removed from the building before Friday noon.

Little effort was made to decorate the building, although several exhibitors made their spaces attractive by the use of rugs, palms and easy chairs. Among the better displays were those of the Oldsmobile, the Chevrolet, the Roamer, the Cole and the Federal truck.

One of the outstanding features of the show was the interest in the truck exhibit. The Iowa farmer is ready to buy trucks. In fact, there is a question if he is not better sold right now on trucks than the average dealer. For, speaking in general, there are many Iowa dealers who have had to be knocked on the head three or four times to be made to realize that the truck is really the thing.

The recent National Motor Truck Development Tour is, without doubt, one factor in the growing interest in trucks

that was manifested at the fair. When the trucks of the tour went into the Iowa fields and demonstrated what could be done there he was sold on the truck proposition. Another big factor that is going to mean much to the truck salesman is the fact that the Iowa boys who have been in the military service are demanding trucks. This is no writer's dream. More than one Iowa farmer expressed himself here this week somewhat as follows: "Well, John is back from the army and he saw what motor trucks would do. I guess, if I am going to keep him on the farm I must buy him a truck.' Iowa sent 110,000 boys into the military service and these lads will be a missionary army for the truck and tractor.

Iowa Is Wealthy This Year

When it comes to being a market for trucks, Iowa has great possibilities. A. S. Kroh, manager of the development tour, in a recent speech to Des Moines salesmen told them that Iowa was one of the greatest potential markets in the world for trucks. Kroh was born in Iowa and has kept his eyes on the state.

The state is rolling in wealth and the Iowa farmer is ready to buy anything that will help him produce greater crops. Harvest is being finished of one of the best small grain crops the state has ever known. Ordinarily during harvest time, the Iowa banks are calling on their Chicago correspondents for funds with which to finance crop movements. But this year the situation is changed and, instead of borrowing money, the farmers and banks are sending it into Chicago.

To evidence the prosperity, one Chicago bank recently received in one day deposits of \$39,000,000, of which two-thirds were from Iowa banks. One Des Moines bank alone, on this day, sent \$1,000,000 to its Chicago correspondent.

The truck dealers are waking up to this potential market as is shown by the fact that a number of models shown at the show were equipped with bodies primarily useful on the farm. And the Iowa farmer is not looking particularly for the low priced car. Witness one sale during the fair by the Iowa White Co of a truck costing \$3,800.

An Iowa made truck not previously shown at Des Moines attracted considerable attention. It was the Bell, made by the Iowa Motor Truck Co., of Ottumwa.

List of Exhibitors

The truck dealers, as well as the passenger car men face the shortage problem and a number of the trucks on display had been sold previously and already were painted with the purchasers' advertisements.

The passenger cars shown at the Des Moines show were the American Beauty. Peerless, Milburn Electric, Roamer. Chevrolet, Stephens, Moon, Haynes. Briscoe, Paige, Hupmobile, Liberty, Apperson, Essex, Hudson, Overland, Reo. Dodge, Jordan, Velie, Allen, Auburn. Maxwell, Scripps-Booth, Dort, Crow-Elkhart, Mitchell, Elear, Nash, Dixie



Flyer, Chalmers, Elgin, Studebaker, Oldsmobile, Cole, Chandler, Cleveland, Columbia, Davis, Franklin, Saxon, Monroe and Hollier.

The trucks shown were the Gary, Chevrolet, Master, Clydesdale, Briscoe, Packard, Commerce, Denby, Autocar, Reo, Standard, G. M. C., Stewart, Traffic, Maxwell, Defiance, Bell, All-American, Gramm-Bernstein, I. H. C., Independent, Bethlehem, Selden, Pierce-Arrow, Republic, Nash, Federal, Ranier, Panhard, Oldsmobile, Dort, Beck, Mack, Winther, Oneida and White.

Details of New Lincoln Car Expected Soon

DETROIT, Aug. 29-Details of the new automobile to be manufactured by the Lincoln Motors Co. will be given out within the next ten days, it is rumored here, although officials of that company are withholding this information and set no time as to when the announcement will be made.

Recently a general sales manager and purchasing agent were engaged to begin their work Sept. 1 and it is known the employment department has been combing the city for expert automobile machinists. Machinery and tools have been installed in the Lincoln plant and gradually the factory organization is being perfected.

The new car, it is reported, will be an eight cylinder model, with V-type engine and weighing about 3200. The price will be around \$2,500 it is said.

Nemours Controls Perfection

NEW YORK CITY, Aug. 29-In a special announcement to the automotive trade the Nemours Trading Corp. states that it has become affiliated in the production and distribution of the tires and tubes manufactured by the Perfection Tire & Rubber Co., Port Madison, Iowa. The Nemours organization, by its representation in the directorate of the Perfection company, will dominate the manufacturing policy, and will distribute Perfection products through its sales organization

Ajax Expansion

NEW YORK, Aug. 29-To provide additional working capital and for the construction of a new factory, the directors of the Ajax Rubber Co. voted to increase its capital by issuing 36,000 shares of capital stock, completing the total authorized capital of 200,000 shares, and to offer this stock to stockholders at \$70 per share.

A quarterly dividend of \$1.50, payable Sept. 15 to stockholders of record Aug. 30 was also declared.

King Trailer Branch

DALLAS, TEX., Aug. 29-The King Trailer Co., Ann Arbor, Mich., recently opened a factory branch here at 1818 Main Street, in charge of A. G. Williams, southwestern sales manager.

Canadian Showing Is First National Post-War Exhibit

Makers Crowd the Toronto Exposition, Seeing Prosperity In the Dominion—Foreign Makers Fail to Appear—Sales Continue Briskly

TORONTO, Aug. 30-(Special Correspondence)—Canada's only National Motor Show was opened here this week by H. R. H. the Prince of Wales, in conjunction with the formal opening of the Canadian National Exhibition.

Forty passenger car manufacturers, twenty-nine truck makers, upward of a hundred automotive equipment manufacturers, and many tractor, airplane, motor boat and motorcycle manufacturers were represented. Owing to the far from adequate space a large number of wouldbe exhibitors were scattered through the numerous buildings that make up Exhibition City. Applications far in excess of space available in the Transportation Building and the three annex hangars were received four months ago. Many of the exhibitors were wrathy over the fact that, at most, they can show but three or four of their complement

It was freely predicted that the Automotive Industries of Canada (The National Automobile Chamber of Commerce of the Dominion) will hereafter withdraw, not only their designation "Only Canadian National Motor Show." but also their sanction and support from the Canadian National Exhibition event unless the much heralded Automotive Palace, with quadruple or quintuple the accommodation afforded by the Transportation Building, is constructed before another year rolls by.

As this is the first post-war National Motor Show and the first collective showing of post-war, new-season (1920) models, and as no other country holds its various national automotive exhibits concurrently and at the same place, the Canadian National Exhibition event takes rank as one of the largest auto-

motive displays.

No European Models Shown

Owing to transportation and labor difficulties, not one of the British, French or Italian car manufacturers has been able to get cars here in time for the show. Wolseley, the first of these to reserve space, does not now expect to place models on the Canadian market before next spring, and Fiat, the last of the European manufacturers to make application, may not now be in a position to deliver cars here before late fall or early winter.

Car and truck sales continue as briskly as production permits, demand far outreaching supply. Most showrooms are denuded of cars and have been for months. Manufacturers, distributers and dealers individually and in their conventions have declared that fall and winter sales will be on an unprecedented high level-that the car famine conditions cannot be more than slightly alleviated for a year and a half and not reduced to normality within from two to three years.

Canada is basking in the sunshine of unexampled prosperity and here the nation-wide building of good roads assures an ever increasing demand for cars.

Canada's Wealth High

Canada is the last of the Great West, with most of the world's nickel (85 per cent), the largest silver mines and famous gold mines, and yet her mineral resources are scarcely scratched. As much can be said for her forest and fisheries wealth. Canada stands at the inception of an era of development not equaled by even the United States following the Civil War. With an area larger than the United States and Alaska combined, Canada has hydro-electric power available to run the industries and railroads of the continent, has 300,-000,000 acres of untilled clearable land, the best wheat-growing land in the world and the last great stretch of fertile, uncultivated land under stable government. Canada has no "bad-lands" or desert wastes. And Canada has gained a position in the world's good will not second to that of the United States.

The per capita wealth of Canada today is the highest in the world-high enough to offset the sixty-odd per cent Canadians must pay for cars above the United States market price. That, combined with the economical need for cars in the Dominion, is the reason given by some of our most astute manufacturers. dealers and distributers for believing that, per capita, Canada will yet equal the United States in being automotivised.

It is sanguinely predicted that over eight hundred thousand will attend the National Motor Show during the next two weeks. Last year over six hundred thousand passed through the Transporta-

tion Building.

Mitchell Makes Closed Bodies

RACINE, WIS., Aug. 30-The Mitchell Motors Co., Inc., is building its own closed bodies for Mitchell cars.

New Offices for Loyal

ERIE, PA., Aug. 29-New offices for the Loyal Motor Truck Co. were taken here to-day at 217-18 Marine Bank Building. This company manufactures the Loyal three-quarter and one-ton trucks.

Digitized by GOGIC

HEADLIGHT CONTROLLER MADE BY TYPEWRITER CO.

FOND DU LAC, WIS., Sept. 2—The Rex Typewriter Co. is enlarging its plant and installing new equipment for the purpose of engaging in quantity production of a new type of headlight controller for motor vehicles. The device operates on a principle similar to that of a street car controller, enabling the operator to regulate the current within a wide range by a small lever attached to the steering column. The Rex controller will retail at \$9.50 and will be distributed through wholesalers and jobbers.

Discontinue Retail Department

NEWARK, N. J., Aug. 30—The Elin Auto Supply Co. has discontinued its retail department and will operate on a wholesale basis exclusively.

Overseas Motor Corporation

NEW YORK, Aug. 30—The organization of a new American company to handle automobile accessories in the foreign field has been formed as the Overseas Motor Service Corp., with offices at 1760 Broadway.

It has established direct factory connections with the following manufacturers and will act as their export sales offices: New Departure Mfg. Co., Hyatt Roller Bearing Co., Champion Ignition Co., Kellogg Mfg. Co., Moto Meter Co., Miniature Incandescent Lamp Works, Marvel Carbureter Co., Gabriel Mfg. Co., Jaxon Rim Co., and J. P. Gordon Co.

The industry is making itself heard on the show date question. Views of manufacturers and dealers are printed on pages 12 and 13 of this issue, and others will follow in next week's Motor World.

Read them, and let us know what you think about it.

THE NEW OGREN CAR NEARS PRODUCTION

MILWAUKEE, Wis., Sept. 1.—The Ogren Motor Car Co., a new \$500,000 corporation, expects to get the Ogren car into regular production in its new plant at 692-698 National Avenue by Oct. 1. The work of remodeling the former Eliterink building, 150 x 200 ft., is now under way, and new equipment is being installed. Hugh W. Ogren, former racing driver, and designer of the Ogren car, is president and general manager.

U. S. L. In Willys Corp.

BUFFALO, Aug. 27—That the United States Light and Heat Co. will be a unit in the new Willys corporation was confirmed to-day. It is very probable that this concern will be considered the battery unit in the new corporation and will furnish the storage batteries for the Overland and Willys cars, as well as for the company's new Auto-lite farm lighting systems.

PLAN MOTOR BUSES ON LONG CAR LINES

KANSAS CITY, MO., Aug. 30-The committee of one hundred citizens, recently appointed by the Chamber of Commerce, to investigate the local traffic situation, may make this recom-mendation: That the street railway company install motor bus service into outlying districts, running the street cars only on congested routes into the business districts. Some members of the committee believe that the street railway company should gradually replace street cars with motor buses, even on the down-town routes. There seems little prospect of the company buying buses, however, though ultimately motor vehicles may be used on some of the outlying and more slimly patronized ends of long lines.

Stick to War Hours

SIOUX CITY, IOWA, Aug. 28-Sioux City storage battery service stations are going to stick by the war time closing hours. The short-hour day and closed Sundays have been so satisfactory that the service stations have advertised that after Aug. 18 they would open at 8 a. m. and close at 5.30 p. m. and no Sunday service. The following service stations have agreed to the new arrangement: Sioux City Storage Battery Co., Vesta Battery Station, Tri-State Storage Battery Co., C. E. Turnbull, Storage Battery & Electric Works, Morningside Motor Co. and the Arthur Electric Service, all of this city.

This Building Was Too Small for the Canadian Motor Show



A part of the east facade of the Transportation Building at the Canadian National Exhibition is shown here. Passenger cars and a part of the automotive equipment are housed in this magnificent structure. Trucks are shown in three large hangars in the rear of the building, while tractors, airplanes, motor boats and other equipment are scattered through the other buildings or in the tented city. This gives an indication of the importance of the Canadian field and the great demand in our sister country for the automobile

NEBRASKA APPROVES STATE TRACTOR TEST

University Engineers Outline Tests for Farm Tractors Under New Law

LINCOLN, NEB., Aug. 29-Arising out of the two bills passed during the last session of the Nebraska Legislature, whereby it was enacted that no farm tractor could be sold in the state until it had passed an official test and, further, that any sale of such tractor would be void unless the necessary supplies and repair parts were carried at some point within the state, the board of tractor test engineers (Professors L. W. Chase, O. W. Sjogran and E. E. Brakett) has approved the following outline for tests to be made under the state law. The complete test consists of the following:

lowing:

(a) Drawbar work at from one-third to full load for 12 hr. This test gives opportunity for the tractor to limber up.

(b) Brake horsepower test at rated load and rated speed for 2 hr. This test is to show whether or not the tractor will carry its rated load on the belt: also to show fuel consumption at rat-d load.

(c) Brake horsepower test at load varying from maximum to no load with all engine adjustments as in test (b) for 1 hr. This will show fuel consumption and speed control on varying load.

(d) Brake horsepower test at maximum load for 1 hr. with governor set as in test (b) and carbureter adjusted to give maximum power. This will show maximum horsepower of tractor on the belt.

(e) Irrake horsepower test at one-half load for 1 hr. with governor set as in test (b) and carbureter adjusted for most economical operation at one-half load. This test will show fuel consumption at one-half load. (f) Drawbar horsepower test at rated load for 10 hr. This will show whether or not the tractor will carry its rated drawbar load continuously. It will also show fuel consumption on drawbar work.

(g) Maximum drawbar horsepower test. This test will be a series of 50-ft. runs with an increase of load for each run until the engine is overloaded or the drivewheels slip excessively.

(h) Miscellaneous. This may include investigation of work on inclines, turning raviter.

engine is overloaded or the drivewheels slip excessively.

(h) Miscellaneous. This may include investigation of work on inclines, turning radius, effectiveness of brakes or any other feature of the tractor which may seem to require special observation.

(i) Tractor will run under observation for endurance throughout the complete test outlined above.

All of the tests will be run at the University Farm, Lincoln, Neb. University employees will operate the tractors.

Record of fuel consumption will be kept in both belt and drawbar tests.

Brake tests will be made with a Sprague electric dynamometer of 150 hp., to which the tractor under test will be belted.

A half-mile cinder track is being constructed for the drawbar tests and it is hoped to maintain this track in nearly uniform condition so as always to be

In the drawbar tests the tractors will pull a dynamometer car or loading machine consisting of a 3-speed Illinois tractor chassis with an electric generator mounted in place of the engine and driven by power from the traction wheels of this chassis. The load can be adjusted by controlling the current in the generator. This loading machine will be pulled through a Gulley traction dynamometer that will make a record of drawbar pull, distance and time.



How Many Movers Are There in Your City?

This is one of a fleet of Federal trucks fitted with moving van bodies and operated by T. F. Cathcart, Atlanta. The truck and van measure over all 261/2 ft. The height is 111/2 ft., with a loading space of 835 cm. ft. The outfit weighs 11,050 lb. unloaded. Is there a field in your city to sell trucks, outfitted after this fashion?

It is probable that the official testing will begin early in October. However, this will depend on whether the cinder track and the drawbar loading machine prove satisfactory in preliminary tests.

Jay Heads Pierce-Arrow

BUFFALO, N. Y., Aug. 30—John C. Jay, Jr., was elected president of the Pierce-Arrow Motor Car Co. to succeed Col. Charles Clifton, chairman of the board. George W. Mixter was appointed vice-president and general manager, in place of Henry May, resigned. M. E. Forbes was elected treasurer, to succeed W. C. Wrye, who resigned as secretary and treasurer. S. O. Fellows, as comptroller, will assist Mr. Forbes. E. C. Pearson, formerly assistant secretary, was made secretary, and J. F. Guider succeeds G. W. Cooke as general superintendent.

NEW ORLEANS DEALERS FAVOR SPRING SHOW

NEW ORLEANS, La., Aug. 28-It seems probable at the present writing that there will be no fall or winter motor show at New Orleans. The dealers appear to be almost unanimous on the idea that it is better to have a big spring show than a fall or winter exhibition.

Some of the used car dealers are in favor of a fall show, and it is barely possible that they will yet get together on such an idea. But the dealers in new cars probably will wait until spring.

Many dealers are advocating a truck and tractor show or, rather, a series of shows and demonstrations to be held, if possible, under the auspices of the Louisiana-Mississippi Automotive Trades Association, through the towns of the farming sections of Louisiana and Mississippi.

According to dealers from the interior of both states, the truck and tractor show, or the big demonstration, would accomplish little.

WILLYS-OVERLAND PRICES ARE NAMED

Six in Production by January —Plan Large Output of All Models

TOLEDO, OHIO, Aug. 29-The Willys-Overland Co., Toledo, Ohio, and Elyria, Ohio, are clearing decks for big production. The labor troubles are now virtually at an end. The decision to concentrate on two models, the Overland Four, which is the small poppet valve four, developed during the past three years, and the Willys Four, fits in with the big production scheme now arranged.

The capacity of the Toledo plant, which is probably from 700 to 800 cars per day, will doubtless be taxed when the company is in full swing. The daily production for the early part of September will run about 250 to 300 Overland cars per day, this being rapidly increased until the ultimate schedule is reached.

Prices have been fixed on both the Overland Four and the Willys-Knight, these being in accordance with the following:

Overland Four-Touring, \$845; roadster, \$845; sedan, \$1,375; coupe, \$1,325. Willys-Knight—Touring, \$1,750; road-

ster, \$1,750; sedan, \$2,550; coupe, \$2,500.

The Willys Six, which will be manufactured by the new Willys Corporation, probably at the Duesenberg plant, will be in production by January and exhibitions of the first models will be made at the New York show. Deliveries probably will start immediately thereafter.

Maccar Export Office

SCRANTON, PA., Aug. 29-An export office has been opened by the Maccar Truck Co. at 21 Park Row, New York

PARIS CABS SHOW SERVICE ECONOMY

Gas Consumption Is Low and Tires Are Changed on Saving Basis

PARIS, Aug. 1 (Special Correspondence)—The taxicab of Paris, carrying from 2 to 4 passengers and baggage, in addition to the driver, average 20.4 miles to the American gallon under city conditions. On long straight-away and suburban runs the average consumption is at the rate of 23 miles to the American gallon.

These figures were issued by Engineer Van der Veldt, of the Compagnie des Auto-Place, which claims to be the oldest and biggest taxicab company in the world, with a fleet of 4100 cabs here and 3600 at London. This company, which started operation in Paris in 1905, makes an almost exclusive use of Renault twin cylinder taxicabs, having a bore and stroke of 3.1 x 4.7 in. This type of engine was adopted because of the facts that gasoline costs are very high in Paris and the utmost economy in fuel has had to be observed.

The driver buys his fuel from the company and pays for it before taking his cab out. This system has had to be adopted in order to protect the interests of the company and to guard against the theft of fuel, or the use of vehicles for private purposes. Benzol imported from England and America is the only fuel used. This now is being sold to the drivers at the rate of 4 francs for the first 10 litres (equivalent to 30 cents per American gallon) and 3 frs. 50 for each additional quantity of 5 litres. The rate roughly is 30 cents per gallon for the first 21/2 gallons, and 54 cents for each additional gallon. The lower of these two rates is the pre-war price and even the higher rate is much cheaper than a private individual can purchase benzol in France.

The retail figure for benzol outside the city of Paris is 65 cents per gallon. These low prices are possible because the company purchases all its own benzol and lubricating oils at the source of supply and brings them into France for the use of its cabs.

Guarantees Gas Use

As the taxicab company sells fuel to its drivers, it is obliged to guarantee the consumption of the engines. This guarantee is at the rate of 18.3 miles to the gallon. The fact tha this consumption is not equaled is proved by the almost complete absence of complaints. Tests made by the company's own mechanics, driving under normal traffic conditions, show that the mileage is in all cases more than 20 to the American gallon. If any driver complains that his cab is not equaling the mileage guaranteed by the company, he is entitled to call for a test, and if this test

proves that the claim is correct his carbureter is put into condition and he is paid for all lost time. If, on the other hand, it is proved that the complaint has been made lightly, the driver is laid off for two weeks. Whenever these claims of high consumption are recognized, it is nearly always found to be due to leaky connections or to other faults resulting from long car usage.

The use of benzol in place of gasoline is entirely satisfactory. The fuel has to be up to a standard specification imposed by the company and on condition that this standard is adhered to there is no corrosion of metals or other ill-results. It should be noted that the choice of benzol in place of gasoline has been adopted, not by the company, but by the drivers. The taxicab garages are outside the walls of the city of Paris and, to get into the city, where practically all the running is done, a local tax has to be paid. This tax is 50 per cent higher on gasoline than on benzol. Naturally the drivers will not use any fuel that has to meet the higher tax. The Auto-Place Company alone consumes 12,000 gallons of benzol daily for the 3000 motor cabs it has in regular service in Paris. This is at the rate of 4 gallons per cab and corresponds to 80 to 90 miles running per cab per day.

Change Tires to Rear

It should be pointed out that in addition to this company practically all other Paris taxicab concerns use benzol and the same fuel is employed by the Paris General Omnibuses, which has a monopoly of the motorbus service in the city of Paris.

The method of tire operation by the

Auto-Place Company is to always put new tires on the rear wheels and never to run anything but repaired tires on the front wheels. The tire size employed is 810 x 90 (32 x 3½ in.). One steel stud and one plain tread are used at the rear. The steel studded tires average 3400 miles on the driving wheels and the plain tread have an average life of 3200 miles.

This is not the complete life of the tire, however, for, owing to the rule that a repaired tire must never be fitted at the rear, casings are moved to the front wheels when they are really in good condition. No very accurate account is kept of front wheel mileage, for this is looked upon as extra mileage. It is estimated, however, that, after its normal service on the rear, every tire is good for 4300 to 4400 miles on the front wheels. It was found to be poor policy to fit new tires at the front, for they gave very little more service than the tires that previously had been in use on the driving wheels.

Normal Life 5 Years

The Auto-Place company makes all its own tires and carries out all its own tire repairs. When it is considered that the Paris taxi-driver is the most reckless in the world, driving hard and braking hard all the time, the results obtained would indicate that the quality of the tires does not leave much to be desired.

Although Renault originally supplied the cabs, the company makes all required parts in its own shops, so that at the end of five years' service, which is the normal life of a cab in Paris, there is practically nothing in the vehicle that came out of the Renault factory.

Eisemann Workers Take Day for Play



Employees of the Eisemann Magneto Corp., of New York, suspended work at the New York factory not long ago and, in a body, went by boat to Whitestone, Long Island, where the annual picnic was held. The workers and their families numbered about a thousand persons, as the above photograph indicates. The boat left its New York dock at 10 o'clock in the morning and wasn't back until late that evening—the time between having been spent in frolic and play

MOTOR TRAIN WINS ACROSS SALT DESERT

Worst Stretch of Transcontinental Trip Completed— Near Pacific

NEW YORK, Aug. 30—Fighting the sands and dreariness of the Great Salt Lake Desert, the transcontinental train of the army's Motor Transport Corps negotiated last week the 250 miles between Salt Lake City, Utah, and Ely, Nevada. The stretch then negotiated was the most dreaded, perhaps, of the cross-country route, according to information reaching here, and was made only after passing tremendous difficulties.

As described by men on the trip, it was made through clouds of low-hanging, penetrating dust and extreme heat, over a deplorable desert trail, with alkali dust and fine sand up to two feet deep on the level but with numerous hidden holes in a country that has had no rain for more than four months. Drivers were able to find no material, except sage brush, with which to make wheel paths and the personnel was kept busy jacking up and digging out the vehicles that sank into the sand, at places to the understructure, leaving the wheels free.

At one time, the convoy was put under water rations of one cup for each man for the night meal and fears were entertained that the supply of gasoline would give out. Finally, however, a tank truck got through to Gold Hill, which was 30 miles from the night camp, and returned with sufficient fuel. Two tanks of water also met the convoy and the worst experience of the men was ended.

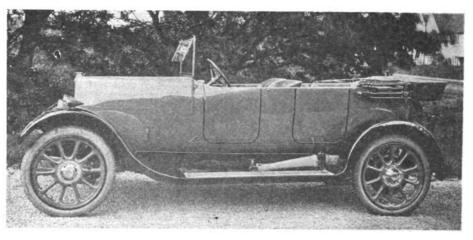
Several detours from the expected trail were made, one of which took the train over a salt marsh with a thin, hard crust of sand and crystallized salt. Practically every vehicle became mired to the body and the removal to hard ground required the utmost efforts of the entire personnel from 2 o'clock in the afternoon until 4 o'clock the next morning.

Some mechanical troubles put the Militor tractor out of commission and it had to be returned to Salt Lake City and from there was shipped in advance of the convoy: All other mechanical difficulties that have arisen, either major or minor, have been taken care of by the train.

The next objective is Eureka, Nevada, and it is expected that good roads will prevail from there to the Coast.

ST. LOUIS LOWERS RECORD FOR CAR THEFTS IN 1919

ST. LOUIS, MO., Aug. 29—During 1917 there were 3,285 automobiles, valued at \$3,285,000, stolen in Chicago and 2,439 automobiles valued at \$2,439,000 recovered, according to figures furnished to the National Automobile Dealers' Association by the Automobile Protective



An Arrol-Johnston for the Prince of Wales

This is one of the standard 13-30 hp. post-war models made by the Arrol-Johnston Co., Dumfries, Scotland, and it has been shipped to this side of the water for the use of the Prince of Wales, now on a Canadian-American tour

and Information Bureau in Chicago, a service organization of a dozen or more companies writing theft insurance. There were 108 arrests in that time and 102 convictions.

In 1918 there were 2611 automobiles stolen, valued at \$2,611,000, and 1954 cars valued at \$1,954,000 recovered. There were 222 arrests and 150 convictions.

From Jan. 1 to Aug. 15, 1919 there have been 1,255 cars stolen and 957 recovered. These figures were compiled by the Detective Bureau of the Office of the Chief of Police.

In St. Louis from Jan. 1 to July 1 there were 699 cars stolen and 506 recovered. In 1918 there were 2,241 automobiles stolen in St. Louis and only 1,354 recovered. The larger percentage of cars recovered this year than last is due, it is felt, by the creation in the St. Louis police department of a special automobile theft bureau.

TENT TO HOUSE SOUTH LOUISIANA FAIR

DONALDSONVILLE, LA., Aug. 29— The South Louisiana Fair Association, whose exhibit opens here Oct. 2 for four days, has offered all the motor dealers of the state space in a huge tent, covering 10,000 sq. ft. Special preference is given to trucks and tractors. About fifty dealers are expected to make exhibits.

Pressman Tires To Open in Philadelphia and New York

PHILADELPHIA, Aug. 28—The Pressman Tire & Rubber Co. is preparing plans for a building in New York City. The building here at 250-254 North Broad Street will soon be ready for occupancy. It will house storage space for 10,000 tires and offices for the local retail and mail order departments, as well as offices for the foreign department and the executive staff.

Besides the tires which the company itself will manufacture, it will sell the product of other makers.

Jumbo Trucks Built on Slightly Heavier Lines

SAGINAW, MICH., Aug. 28—The Nelson Motor Truck Co. has announced changes of construction along slightly heavier lines, making possible an increase in the rating of Jumbo Model D from 4000 to 5000 lb. Several equipment improvements also were announced, including installation of a new lubricating system. The chassis price has been increased from \$2,500 to \$2,700. The new Jumbo models will be announced soon of 1½ and 3½-ton sizes, each to be supplied in three wheelbase lengths.

New York Registrations

ALBANY, N. Y., Aug. 30—Figures just announced by the Secretary of State, covering the first six months' registration of motor vehicles in New York State, show an addition of over 68,000 compared with the six months ended Aug. 1, 1918. Commercial cars have increased over 13,000, but motorcycles have decreased by over 4700. On Aug. 1, 1919, New York State had a total motor vehicle registration of 504,771.

Comparative figures between Aug. 1, 1918, and Aug. 1, 1919, show an increase as follows:

as follows:

Vehicles	Aug. 1, 1919	Aug. 1, 1918	Increase
Passenger	398.560	346.100	52.460
Omnibuses		16.859	2,197
Commercial .	83,076	69,160	13,916
Trailers	1,633	1.887	Dec. 254
Motorcycles .	21.626	26,415	Dec. 4,789

In the first six months of 1918, the State automobile bureau collected \$4,621,015, which is \$607,136.50 less than so far this year. The last six months, as compared with all of last year, show an increase of 32,686 in passenger cars; 951 in omnibuses; 7,767 in commercial cars, with a decrease of 585 in trailers.

Total receipts of the motor vehicle bureau on Aug. 1, this year, amounted to \$5,228,151.50, an advance of \$282,854 over all last year, when the receipts were \$4.945,297.50.

MILWAUKEE EXPECTS **MANY SHOW VISITORS**

Dealers Feature Fall Exposition and See Big Sales—Large Truck Exhibit

MILWAUKEE, WIS., Aug. 30-Milwaukee's annual fall show, conducted in connection with the Wisconsin State Fair by the Milwaukee Automobile Dealers, Inc., is expected to be this year the most attractive and interesting of the four similar shows that the association has given. With factories filling something more than one-half of the actual demand for passenger cars, an eager public is expected out in full force to see what the new season offers "by sample" as it were.

The State Fair and the show open coincidentally on Monday morning, Sept. 8. and close Saturday afternoon, Sept. 13. The fair grounds are located about six miles from the heart of the city, at West Allis, the big manufacturing suburb of Milwaukee. The motor exhibit will be housed in a large fireproof building, leased from the State Fair management, or state department of agriculture, by the Milwaukee dealers at a lump rental for the week. The association attends to all the details of selling space, installing decorations, etc. An admission fee of 10 cents is charged, this nominal fee having been found advantageous in keeping the crowds duly limited.

Since the motor show at the State Fair became a distinct institution under association direction, five years ago, it has come to be an event of virtually equal importance with the annual mid-winter show in the Auditorium, downtown. The State Fair attracts large crowds of all classes from all parts of the state as well as Milwaukee. It comes during the second week of September when most factories have not only announced next season's models, but have placed the new cars in the hands of distributers and dealers.

This makes it a big retail sales effort, but for the distributer it means a close contact with the dealers and sub-dealers throughout their territory, embracing Wisconsin and Upper Michigan.

In addition to the "Motor Hall" proper, a concrete building, 150 x 350 ft., a mammoth circus tent will be used as an annex to handle exhibits. This has been done at the previous two fairs, but, before the 1920 exposition, the permanent structure will be doubled in size. This work was delayed by the war and other conditions. This year the permanent building will be devoted to exhibits of passenger cars and automotive equipment, and the tent will contain the truck and trailer displays.

The list of exhibitors follows:

Passenger Car Division.—Jonas Auto Co. Cadillac; Milwaukee Auto Service Co., Velie; Estberg-DeLand Co., Maxwell and Chalmers; KisselKar Co., Kissel; Edwards Motor Co. Dodge Bros.; Elgin Motor Sales Co., Elgin Six: Olson & Pauly Auto Co., Holmes; Wisconsin Oakland Co., Oakland; Lear-Diel-

Do you sell farm lighting or do you contemplate taking on this line?

The experiences of two distributers, one in Kansas and the other in Nebraska, with details of the methods followed by their local dealers, will be related in next week's MOTOR WORLD.

The story contains concrete suggestions for getting started on the road to success in the farm light business.

Read it!

Droegkamp, Inc., Hupmobile; Jesse A. Smith Auto Co., Hudson and Essex; Fowler Motor Co., Apperson; Nash Sales Co., Nash; Eckstein-Miller Co., Marmon; R. D. Rockstead, Lexington and Allen; Sanger Auto Co., Franklin; Curtis Automobile Co., Reo; Creek Motor Sales Co., Columbia Six; J. G. Wollaeger Co., Studebaker and Peerless; Buick Motor Co., Buck; Diener-Nelson Co., Haynes; Bachman Motor Co., Dort and Grant; Rilling-Ziegler Sales Co., Scripps-Booth; Anderson Vehicle Co., Auburn; Hamper-Albertson Co., Liberty; Chevrolet Motor Co., Chevrolet; Hughes Motor Car Co., Stanley, Harroun and Dixie; March Motors Co., Mitchell; Elkhart Sales Co., Elcar and Crow-Elkhart; Rademacher & Jaeger Co., Paterson; Noble Z. Smith Motors Co., National; Stearns Sales Agency, Stearns: Wisconsin Motor Car Co., Jordan; Franklin-Colker Motor Co., Moore; George W. Browne, Automobiles, Inc., Overland, Willys-Knight; Frint Motor Car Co., Olds; Osmond Motor Car Co., Winton and Paige; Achen Motor Co., Chandler and Cleveland; W. H. Krueger Motor Co., Cole and Briscoe; Ford Motor Co., Ford; Van Etta Motor Co., Stutz.

Commercial Car Division.—Ford Motor Co., Ford; Elkhart Sales Co., Huffman: White Auto Co., White; West Side Buick Co., G. M. C.; Chevrolet Motor Co., Chevrolet; March Motors Co., Clydesdale and Duplex: KisselKar Co., Kissel; Alfred Reeke Co., Nash; Packard Motor Car Co., Bethlehem; Bluemm & Hartung, Atterbury; Sterling Motor Truck Co.

Co. Nash: Packard Motor Car Co. Packard; Bethlehem Motor Truck Co., Bethlehem; Bluemm & Hartung, Atterbury; Sterling Motor Truck Co., Sterling; Motor Truck Service Co., Master; Parker Motor Truck Co., Parker: Edwards Motor Car Co., Dodge; Frint Motor Co., Olds: International Harvester Co., I. H. C.; M. D. Newald & Co., Stewart: Milwaukee Auto Service Co., All American; R. D. Rockstead, Winther; Curtis Automobile Co., Reo; Estberg-DeLand Co., Maxwell; Upham-Schacht, Inc., Service; F. J. Siekert, Jr., Olson Two-Ton; E. M. Sullivan Motor Truck Co., Diamond T: High-Automobile Co., Acc., Lastrage Maxwell: Upham-Schacht, Inc., Service: F. J. Siekert, Jr., Olson Two-Ton: E. M. Sullivan Motor Truck Co., Diamond T; Highway Trailer Co., Highway trailer; Milwaukee Warner Trailer Co., Warner trailer; Wisconsin Body & Sales Co., truck bodies; J. L. Clark Mfg. Co., tops and bodies: Oneida Motor Truck Co., Oneida; Olympian Car Co., Donby

Denby.

Automotive Equipment Division—Julius Andrae & Sons Co., Badger Auto Repair Co., Manitowoc Plating Works, Marquette Mfg. Co., Coffield Tire Protector Co., Brown's Tire Store, W. Frank Horn Co., Henry J. Dewitz, Howard M. Eldred Co., H. N. Brain, Simplicity Wheel Co., Presto Felt Mfg. Co., Badger Auto Parts Co., Detroit Steer Wheel Sales Co., Automotive Accessory Co., Wisconsin Magneto Co., L. Lawrence & Co., Cochrane Pipe Wrench Co., Gentz Sales Co., Pan-American Rubber Co., Babcock Auto Spring Co.

The show is in charge of the following committee of the M. A. D.: Leslie D. Frint, chairman; H. P. Carter and J. E. Nelson. Bart J. Ruddle, assistant secretary of the association, is show manager. Ruddle has handled every Milwaukee show since the event first was instituted in 1909.

In addition to this exhibition, the M A. D. will conduct its main show in the auditorium in January, and will hold a "spring opening," consisting of individual salesroom displays, early in April of cach year.

INCREASE IN FEDERAL AID FOR ROAD WORK

\$300,000,000 Expended 1918—Plan to Complete Old National Road

WASHINGTON, Aug. 29-Since early in 1919 there has been a steady increase each month in the Federal-aid business in the Bureau of Public Roads of the United States Department of Agriculture. States in all sections of the country are filing their projects.

Based on complete reports from fortyfour of the states, cash expenditures on the rural roads and bridges of the United States for the year 1918 amounted to \$286,098,193. To this should be added the value of statute and convict labor which cannot be fixed with any great degree of accuracy, but probably amounted to not less than \$14,000,000, making the total expenditures for the year \$300,000,-000. This total is made up of the actual expenditures for such items as labor, materials, supervision and administration directly connected with the construction, improvement and upkeep of public roads and bridges outside the limits of incorporated towns and cities, and does not include any item for sinking fund payments or redemption and interest on road and bridge bonds.

A project under the Federal Aid Road Act, filed with the Bureau of Public Roads, contemplates, after the lapse of nearly a century, the completion of the Old National Road, extending from the Potomac to the Mississippi, which 1ready has been largely improved as far west as the Indiana line. The Illinois improvement will extend from East St. Louis across the State to the Indiana line, traversing St. Clair, Madison, Bond, Fayette, Effingham, Cumberland and Clark counties.

The proposed type of surface is monolithic brick and concrete pavement, the average cost of which is about \$30,000 per mile. The proposed improvement includes also the construction of forty bridge structures, of lengths ranging from 22 ft. to 300 ft. At present the uncompleted portion of the highway is generally an unimproved earth road, which becomes nearly impassable at certain seasons of the year. There are, however, near some of the villages, short stretches of macadam pavement, generally in very poor condition. The local traffic consists of approximately 60 trucks, 700 motor vehicles and 50 horse. drawn vehicles per day, to which is added during the summer months a through traffic of about twenty trucks and 200 passenger motor vehicles.

Automobile Day at Quebec Exhibition

QUEBEC, P. Q., Aug. 28-An Automobile Day is under contemplation in connection with the Quebec Provincia: Exhibition at Quebec.



COMING EVENTS

Races, Contests a	nd Tours
Sheepshead Bay, N. Y. Sept. 20 Allentown, Pa. Sept. 27 Trenton, N. J. Oct. 4 Cincinnati, O. Oct. 11 Danbury, Conn. Oct. 11 Paris, France July, 1920	Speedway. Dirt track event.
Trenton, N. JOct. 4	.Dirt track event.
Danbury, ConnOct. 11	Dirt track event.
Paris, FranceJuly, 1920	Commission, Automobile
	Club of France.
Meetings	,
ChicagoSept. 8-9	Mfrs. Assn., Congress
Buffalo, N. YSept. 11-12	Annual Credit Manufacturers Convention, Motor & Accessory Mfrs. Assn.,
Philadelphia, PaSept. 22-24	Association of Purchasing
Sheffield, EngSept. 24-25 Denver, ColOct. 1	Agents, Bellevue-Stratford. Institute of Metals. Directors' Meeting, National
Cleveland Oct 1-4	Automobile Dealers' Assn. Eighth Annual Safety Con-
ClevelandOct. 1-4	gress of National Safety Council.
Jackson, MissOct. 9-10	Louisiana-Mississinni Assn
Atlantic City, N. JOct. 14-17	.Twenty-fifth Annual Convention. Marlborough - Blen-
	tion, Marlborough - Blen- heim, National Hardware Association of the United States.
Washington, D. COct. 29	ence provided by Peace
Chicago, IllNov. 3-8	.Convention, Automotive Equipment Assn., Med nah
Detroit	. Meeting of National Assn. of Motor Truck Sales Mgrs.,
London, EngNovember	Hotel Statler. Road Transport Congress and Exhibition.
ClevelandDec. 3-5	Ohio Automobile Trade
Louisville, KyFeb. 9-13	Assn., annual convention. Seventeenth Annual Conven-
	tion American Road Build- ers' Assn.; Tenth American
	Good Roads Congress and Eleventh National Good
San Francisco, CalMay 15-20	Roads Show. Seventh Annual Foreign Trade Convention.
Foreign Sho	Davis
· ·	
Toronto, CanAug. 23-Oct. 6.	Airplanes and Motor Boats
	Airplanes and Motor Boats in conjunction with Canadian National Exhibition.
Ottawa. Ont Sept. 6-16	
Christiania, NorwaySept. 10-24	Goods at Trivoli Exhibi-
Paris, FranceOct. 15	Grand Palais International
London, EngNov. 7-16	Automobile Manufacturers
_	of Motor Manufacturers & Trades.
Christchurch, N. ZNovember	.Scottish Motor Exhibition.
Manchester, EugFebruary	hibition.
London, EngMarch	tionary Engine Exhibition.
Vondon, EngApril or May	Commercial Vehicles Exhibi- tion, Olympia.
Tractor Demons	trations
Los Angeles, CalSeptember	Regional Tractor Demon-
	stration under the auspices of the National Implement & Vehicle Assn.
Streator, IllSept. 9-12	Northern Illinois Tractor & Truck Assn. W. S. Peter-
Lincoln, EngSept. 24-27	man, ManagerSociety of Motor Mnfrs. &
Lincoln, EngSept. 24-27	Traders, Ltd. Exhibition of Tractors and
	Agricultural Vehicles, in connection with the tractor trials.
Ottawa, OntOct. 14-16	Tractor and Farm Machin-
	Booth Farms, Inter-Pro- vincial Plowing Match and
	Tractor Demonstration.

Shows

Silows
Minnesota
Greenville, S. CSept. 1-6Agricultural Implements and Tractors. F. M. Burnett, General Manager.
Cincinnati, OSept. 13-20Ninth Annual, Music Hall, Cincinnati Automobile Dealers' Assn., H. K. Shocklay Manger
Springfield, MassSept. 15-20Eastern States Exposition. J. O. Simpson, General Man-
New York CitySept. 24-Oct. 3. New York Electrical Exposition, Electric Cars, Trucks and Equipment, Grand Central Palace.
Detroit, MichOct. 6-11Closed Cars: Detroit Dealers'
Pittsburgh, PaOct. 11-18Fall Show. New York CityOct. 15Opening of International
Farm Tractor & Implement Exchange, Grand
Central Palace. Ft. Dodge, IaOctoberFall Motor Show, District Fair Grounds.
Chicago, Ill
New York CityNov. 16-23 Automobile Salon, Hotel Com-
New York, N. YJan. 3-10Grand Central Palace, National Automobile Chamber of Commerce, S. A. Miles Manager
New York CityJan. 3-10Eighth Coast Artillery Armory, Commercial Cars and Accessories
Chicago. IllJan. 24-31Coliseum. Cars: Drexel Pavilion; Trucks, National Automobile Chamber of Commerce, S. A. Miles, Manager
ChicagoJan. 24-31International Amphitheater, ('commercial Cars and Accessories.
Deadwood, S. DFebruaryAnnual Show, Deadwood Business Club, F. R. Bald-
Kansas City, MoFebruaryFifth Annual Tractor Show, Kansas City Tractor Club.
Guy H. Hall, Manager. Wichita, KanFeb. 9-1Tractor and Farm Machin- ery, Forum, Wichita Thresher-Tractor Club.

Automotive Shows at Fairs

Automotive	Shows at rairs
Lincoln, NebAug. 3	31-Sept. 5 Cars, Trucks and Tractors. E. R. Danielson, Supt. of Concessions.
Hartford Conn Sent.	1-5Cars, Trucks and Tractors. 1-5Connecticut Fair Assn.
	1-5Tractor demonstration and truck show, Philadelphia County Fair.
Rochester, N. YSept.	1-6Automobile Club of Roches- ter. E. F. Edwards, Man- ager.
	1-6Nineteenth Annual in con- nection with Indiana State Fair.
Spokane, WashSept.	1-6Cars, Trucks and Tractors.
Milwaukee, WisSept.	8-13Milwaukee Automobile Dealers, Inc. Bart J. Ruddle, Manager.
•	8-13Cars, Trucks and Tractors. Motor Hall and Machinery Field.
	8-13Cars, Trucks, Tractors, Automotive Equipment. C. N. McIlvaine, Mgr.
	8-13Cars, Trucks and Tractors, Montana State Fair.
Syracuse, N. YSept.	8-13Cars, Trucks and Tractors.
Douglas, WyoSept.	9-13Cars, Trucks and Tractors. 12-20Cars, Trucks and Tractors.
Peoria, Ill <u></u> Sept.	12-zoCars, Trucks and Tractors.
Hutchinson, KanSept.	13-20Cars, Trucks and Tractors. 14-20Cars. Trucks and Tractors.
Sloux City, IaSept.	14-20 Cars. Trucks and Tractors.
Vakima Wash Sept.	15-20Cars, Trucks and Tractors.
Springfield, MassSept.	15-20Cars, Trucks and Tractors O. A. Nash, Asst. Gen.
	Manager.
Billings, Mont Sept.	16-19 Cars, Trucks and Tractors.
Memphis Tenn Sept.	20-27 Cars. Trucks and Tractors.
Oklahoma City, Okla Sept.	20-27 Cars. Trucks and Tractors.
- ··· - ·· - · · · · · · · · · · · · ·	J. S. Malone, General Man-
	ager.

(Continued on page 48)

${ m CHANGES}$ ${ m In the Trade}$

Paul M. Fifer succeeds Paul Cornelius in the production department of the Oakes Co., Indianapolis, Ind.

≣ Kanaramandananninganannangsi ambi satama, a ri, agyisa, nasamana nasamba

Frederick C. Gilbert, vice-president and director of the Timken-Detroit Axle Co., in charge of sales and publicity, who has been with the organization since its formation ten years ago, has resigned. Prior to this connection he was for 14 years with the Pope Manufacturing Co., as general production manager for several of its plants, including the Pope Motor Car Co., Toledo, later sold to the Willys-Overland interests. Mr. Gilbert plans to take a rest before making any announcement of future plans.

H. F. Harris has been appointed general manager of the Bethlehem Motors Corp., Allentown, Pa. Mr. Harris is an industrial engineer who has had experience with the Everett, Studebaker, Maxwell and Overland organizations, and for the past two years has been with the Republic Motor Truck Co.

H. L. McClaren, who recently resigned as president and general manager of the Ajax and Racine rubber companies, has become president and active general manager of the J & D Tire Co., Charlotte, N. C. Mr. McClaren was elected president and general manager of the Racine Rubber Co. in 1913, and when that company was merged with the Ajax Rubber Co. in 1917, he held the same position with both companies. In his new position he succeeds William F. Smith, who has resigned. Projuction has been increased in the past year over 400 per cent and further expansion plans will be carried out shortly.

Averill Tilden, a Chicago banker, will succeed H. L. McClaren as a director of the Ajax Rubber Co., New York.

George H. Deubner, chief engineer for the Berley Motor Car Co., Kalamazoo, Mich., for the past six years, has resigned. His future plans have not been announced. L. F. Goodspeed, member of the engineering staff, is acting as chief engineer at present.

J. C. McAdams has severed his connection with the Wyeth Hardware & Mfg. Co., St. Joseph, Mo., and will distribute gasolators, made by the Martin-Lumaghi Co., St. Louis, in West Virginia, New Jersey, New York, Delaware, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine and Canada.

L. N. Burns, for some years past general sales manager of the J. I. Case Plow Works, Racine, Wis.. has been elected vice-president of the company, succeeding the late F. R. Pettit. Malcolm Erskine was elected, secre-

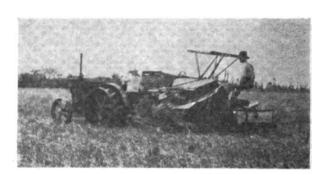
tary and will also act as purchasing agent. He was formerly assistant secretary and treasurer.

E. M. Newald, who recently returned from overseas, will be manager of the wholesale finance department of the Continental Guaranty Corp., New York City.

L. T. Knocke has resigned as experimental engineer of the Waukesha Motor Co., Waukesha, Wis., to become chief engineer with the Falls Motors Corp., Sheboygan Falls, Wis.

Raiph E. Keller has joined Buck & Hammesfahr, advertising agents, New York, Chicago and St. Louis. Mr. Keller has been associated with the advertising of Willys-Overland, Peerless and Cole cars, Stewart-Warner speedometers, Republic and Garford trucks, Federal tires, Standard parts, etc.

The old saying, "A child can run it," is demonstrated here in he operation of a Case 10-18 tractor in South Georgia by J. T. Stovall, seven-year-old son of R. M. Stovall, Florida salesman of the J. I. Case Threshing Machine Co.



John Cleary, formerly with the Cadillac Philadelphia branch, is now advertising manager of the Cadillac Motor Car Co., Detroit. He succeeds Leo N. Burnett, who resigned to handle the advertising for the new company being formed by D. McCall White. Cleary handled the Cadillac advertising while Mr. Burnett was in the army, being relieved by Mr. Burnett when he returned to civilian life several months ago.

B. C. Dale, of San Jose, has joined the organization of L. Artana & Son, distributers of Fageol trucks and tractors in the Santa Clara Valley.

V. M. Smith has been appointed general superintendent of the Supreme Motors Corp., Warren, O. He was formerly with the Hudson Motor Car Co and previous to that was general superintendent of the Continental Motors Corp. and assistant superintendent of the Mercer Automobile Co.

H. B. Schmidt has resigned as one of the directors, vice-president and purchasing agent for the Crow-Elkhart Motor Corp. to become connected with the Huffman Bros. Motor Co., Elkhart, Ind., as manager for the company's passenger car department.

F. N. Weber has been appointed assistant purchasing agent for the Mitchell Motors Co., Racine, Wis. He will take charge of purchases of all materials entering directly into the construction of bodies and some of the materials for the construction of chassis. His appointment to this position follows his release from government service, where he was connected with motor truck production. Robert L. Murphy has been appointed

Robert L. Murphy has been appointed agent of the Wisconsin Parts Co., Oshkosh. Wis., to succeed L. W. Cash, who resigned recently.

A. K. Gliroy has been appointed manager of the Perfection Sales Co., Danville, Ill.

John M. Pendleton has been appointed distributer for the Bessemer motor truck, made by the Bessemer Motor Truck Co., Grove City, Pa., for New York State as far north as Schenectady, for New Jersey as far north as Trenton, and for the entire states of Massachusetts and Rhode Island. He has opened a sales, service and parts station at 505 West

Fifty-fifth Street, New York City, under the name of the Bessemer Agency of New York. Mr. Pendleton was formerly sales manager of the New York branch of the Sterling Motor Truck Co., Milwaukee, Wis.

J. Robin Harrison, sales promotion man-

ager of the Parrett Tractor Co., Chicago, has been appointed director of sales of that concern and will have complete charge of the sales service and sales promotion departments of the company.

John H. Rosen, formerly sales manager of the passenger transportation department of the Packard Motor Car Co. of Philadelphia, has been appointed general manager of this department. Mr. Rosen before entering service was formerly manager of the Wilmington, Del., branch of the Packard company.

Walter H. Shutt, who has been identified with the H. J. Koehler Motors Corp. of Newark, N. J., for a number of years, has severed his connection with that company and, with Charles R. Hulley and others, has incorporated the Advance Auto Service Co., with offices at 20 Orange Street, Newark, N. J. The Advance Auto Service Co. will conduct engineering and special service departments in addition to rendering a repair reconstruction and manufacturing service.

COMING EVENTS

(Continued from page 47)

Pueblo, Col......Sept. 22-27....Cars, Trucks and Tractors.
J. L. Beaman, Manager.
Salem, Ore....Sept. 22-27....Cars, Trucks and Tractors.
Dealers' Motor Car Assn.,
M. O. Wilkins, Mgr.
Allentown, Pa....Sept. 22-27...Lehigh County Agricultural
Assn.
Waterloo, Iowa...Sept. 22-28...Automobile show, in connection with Waterloo Dairy
Cattle Congress: Black
Hawk County Motor Trades
Bureau. G. V. Orr. Secre-

Kansas City, Kan.....Sept. 24-Oct. 4. Cars, Trucks and Tractors. Muskogee, Okla.....Sept. 29-Oct. 4. Cars, Trucks and Tractors.

Meridian, MissSept. 29-Oct. 4 Cars and Tractors. A. H.
George, General Manager. Chattanooga, TennSept. 29-Oct. 4Chattanooga Auto Dealers' Assn.
Brockton, MassSept. 30-Oct. 3 Cars.
Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Dealers' Assn.
Northampton, MassOct. 1, 2, 3Three-County Fair. S. E. Hickman, Mgr.
Dallas, TexOct. 6-19Cars, Trucks and Tractora. Texas State Fair.
Charleston, W. VaOct. 15-18Tractor Demonstration, Ka- nawha County Fair.
Raleigh, N. COct. 20-25Cars, Trucks and Tractors.
Shreveport. LaOct. 22-27Cars, Trucks and Tractors.
Columbia, S. COct. 27-31South Carolina State Fair Assn.
Jacksonville, FlaNov. 22-29Florida State Fair and Exposition, B. K. Hanafourde
Mgr.

Passenger Cars

Passenger Cars

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MAN TIME	120 34		77	106 31	142 35	136		117 33	120			22 22 23	120 33	136					113 33	118 32	211 22	108 20	138	127 34	130 36	25 25	122 22	22: 22:		202	118 32	115 32	125 32 118 33	121 34	138 35	
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ABBREVIATIONS.—"A Kees" Atracter Kent, "A-Lite" Auto-Lite, "Conn" Connecticut, "G & D" Gray & Davis, "Essmann" Essmann. "I.-N" Lecce-Neville, "N.E." NorthEast, "Wetha Quick Detachable Reversible. NOTE.—3053; means that the rest tirus are 3053; and the front are smaller. \$11x6 C tirus on Sectas.

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WINTER BUSINESS NUMBER

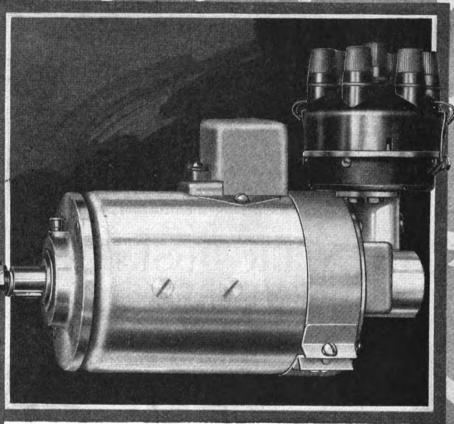
October 15

Because of unusual conditions within industry and trade, MOTOR WORLD'S annual Winter Business Number—to be published October 15—will be of unusual importance. It will be of vital importance to dealers, jobbers and garage owners—those who buy at wholesale and sell at retail all products of the automotive industry.

The WINTER BUSINESS number of MOTOR WORLD (October 15) is going to be the most important of its kind ever published. Every page will represent a distinct "urge to action." Its editorial features will spur our trade along the path of better and more profitable merchandising—and that means greater success for both industry and trade.







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Vol. LX

New York, U. S. A., Wednesday, September 10, 1919

No. 11

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The Trade DEMANDS

NO MORE TIRE

Jobbers and dealers in all sections of the country, joining movement to wipe out the adjustment evil, point out to manufacturers the handicaps it imposes on good merchandising—Tire makers who have dropped the guarantee tell of their success selling tires on their merits.

HE tire trade of America has risen as one man to demand: NO MORE GUARANTEES.

The movement is gaining momentum with the rapidity of an Alpine avalanche.

Manufacturers who market their products without guarantees are coming forward with public announcements of their experiences, all marked by success, with the expense and turmoil of the adjustment nuisance eliminated.

Jobbers and dealers who handle non-guaranteed tires are telling the world how easy it is to sell a good tire AS A TIRE, NOT AS A MILEAGE COUPON.

Jobbers and dealers who sell guaranteed tires are writing pointed letters to the manufacturers, demanding that they be freed of a system which makes merchandising a round of bickerings, AND WHICH KEEPS THE COST OF TIRES ABOVE A FAIR PRICE LEVEL.

A mighty pressure is being brought to bear upon the manufacturers who are standing by the guarantee.

HOW LONG WILL THEY RESIST IT? HOW MUCH LONGER WILL THEY WANT TO RESIST IT?

The Mohawk Rubber Co. has written to Motor World, telling how it has built up a successful business WITHOUT THE GUARANTEE. Kelly-Springfield and other manufacturers, in past issues of this publication, have branded the guarantee policy a mistake from the day it was inaugurated. A California dealer has pointed out the ridiculous situation under which dealers in seconds guarantee their tires, after an expert has marked them unfit to bear the manufacturer's name—AND THESE SECONDS ARE GUARANTEED TO RUN AS FAR AS FIRSTS.

Isn't it time to make sanity the presiding genius of the tire industry?

In addition to the straight-from-the-shoulder statements of the Mohawk and Savage companies, MOTOR WORLD has received during the

week a flood of letters from the trade, many of which would carry a full page each, if space permitted.



ZORNIO DE LA CONTROL DE LA CON

GUARANTEES



Motor World, 239 West 39th St.,

Boy York.

Contlemen

With reference to the elimination of the tire mileage guarantee, we beg to advice that we are heart and soul with this agitation and believe it is high time that somebody started a compaign to make clear to the dealer and the communer just what a tire guarantee covers.

For seven years we have consistently avoided the use of the guarantee as a selling argument. We have never printed a guarantee, except in the form of a slip which we send out only upon request, and during seven years have possibly used some 5000 of these in our factory and branches.

It is our firm belief that there is no one thing that would accomplish more for everybody concerned, from the consumer to the manufacturer, than the elimination of the half truth, Celiberate misrepresentation and general misunderstanding of that a tire gnarantee covers.

We have consistently made a high grade tire for the last seven years. We have built up our demand and reputation upon the quality of our goods, and without any mention whatever of guarantee. Others can do likewise regardless of whether they make a cheap, a medium or a high grade tire.

The consumer gets little or no satisfaction out of constant adjustments. The dealer makes his money out of sales, not out of adjustments, and the fewer adjustments he sakes the better his bank account will look at the end of the year. With the manufacturer the adjustment end of the business is most unsatisfactory under present conditions. As at present handled it is the greatest source of loss of customers, and this is largely due to failure to educate the consumer and the dealer to exactly what a guarantee covers.

We honest manufacturer objects to making good any actual defects, and it is not logical that he should place a mileage limit in which these defects must disclose themselves. The man who uses his tires well within their carrying capacity, gives them proper attention as to inflation and repairs, is certainly entitled to protection for a longer period of time or a greater number of miles than the man who does not.

You may put us down as emphatically in favor of a campaign of education, looking toward the putting of the tire guarantee on the same basis as the guarantee on any arkicle made by a manufacturer whose intention is to give his oustowers good value for their money.

Yory truly yours

THE MORAWE RUBBER COMPANY

M. E. Masou

Sales Manager

A letter that tells its own story

Among the tire merchants who are giving the manufacturers something to think about is the Wholesale Auto Supply House of Tampa, Fla., which recently forwarded the following (two) communications to the Federal Rubber Co.:

(First)

Abandon the Guarantee

Should the Federal Rubber Co. feel disposed to do anything for Yours Truly, tell them to get busy before the need of a "tombstone" arises. While we are in the "quick" and can feel and appreciate any rewards they may have to dispense, we have made what we believe is a satisfactory arrangement for the tombstone already.

Now here is a way to settle the second question: First, dispense with all guarantees. Then have your tire agreements with your distributers and dealers that they shall be expected and required to take a percentage of the factory output of seconds in proportion to the number of other casings they use, the seconds to be about two to three grades with graduated prices based on the list value of a first grade and to be sold for exactly what they are and to be so branded by the factory.

You say, "Very fine, but the little boy will not come into the pool." Well, let's shove him in! We can cause legislation to be enacted nationally for the branding of second tires and this. we believe, would solve the problem on that feature. Then the small boy would be only too glad to feel satisfied on the guarantee matter, because having cut your prices, not being required to carry a certain amount of tire insurance, it would be necessary for him to cut in order to get any business, and he would be forced to abandon the guarantee feature even provided he thought it a good business policy to maintain it, because in cutting your profits. thereby making him cut his profit, he would be deprived of the possibility of making a guarantee because there would be no provision left in his costs to take care of it.

JUST LIKE THAT. SEE HOW SIMPLE IT IS! You may be in position to get a hearing for the plan. If so, you may divide the profits and glory with the undersigned.

(Second)

Something About Seconds

The custom of the rubber companies of selling seconds, new tires and blemished tires to cut rate tire houses is a policy that someone in position to do so ought to call to the attention of the Rubber Club of America, or whoever it

is that regulates such things, as being a sadly mistaken policy.

Many tire concerns seem to even give this class of trade better treatment than they give to legitimate jobbers and dealers, whereas whenever a tire of this sort is sold it prevents the sale of a first grade tire.

If the policy of giving guarantees were abolished and tires sold on their merits, sold as first grade, blemished, and seconds, as the case might be, and bought through legitimate tire concerns, the tire business would be put on a much healthier basis than it is now. This would eliminate large quantities of hot air and tires would then be sold on their merits and lots of unpleasant features to jobbers and dealers would be eliminated.

We would be very glad, indeed, to see the day when the larger tire concerns could get together on a proposition of that sort.

Why Guarantee at All?

The Dixie Sales Co., Greensboro, has written as follows to A. H. Price of the Pennsylvania Rubber Co.:

When you bought your new Buick car they told you that it was guaranteed for 90 days, I believe. They also told you that one of the most important things you had to do was to keep plenty of oil in the motor—and you keep it there don't you?—because you know what would happen if you didn't do it.

But suppose you neglected to keep the oil in there and in about 30 days you burned out all the bearings, would you go back to the Buick dealer and ask him to adjust it for you by giving you a new motor? Of course you wouldn't, because you would know that you were to blame.

Now this same thing applies to tires. When you make a tire you guarantee it to be free from defects and imperfect workmanship and adjust it on a 6000-mile basis.

You also tell the customer (or at least we do) to keep so much air in the tire, but instead of the customer doing so he will put the air in to suit himself (although he keeps plenty of oil in the motor because he doesn't want to pay for a new one), and in a short while he brings the tire back to the dealer with a stone bruise or a rim cut and if you don't give him some kind of an adjustment you will get cussed out and lose a customer and then some other dealer has to go through the same thing.

Now the point is this: Why guarantee tires at all? Nine times out of ten the customer is asking for something that he is not entitled to, and he knows it, but if he can get something

The customer greatures that there is except had it the desired case not need to it that the customer gets something be gets sore and you look a customer.

Keeping air in your tires is just the same keeping oil in your engine. The only difference is and rain it you blane no one but yourself, but if you keep your tires only half rail of air and you rain them, of course the tire company is to blane for that.

Bealer Forgets Mileage

Letter from wholesalers and dealers include R. D. Smith, Marion, Ia.:

We can't six tall with this tire guarantees fight on, no we arise to say that we are with you took and toe nail.

We can't six tall with the trade can see where it is all right. In fact what we make the it is completed by the your dope into practice and find that the trade can see where it is all right. In fact what emans to see the light.

Eliminate Them

Southwest Another Co-operator

Walters Rubber Co, Inc., Mineola, N. Y.: We read with a great deal of interest the articles on "No More Tire Guzantees," and take and to assure you that we great deal of interest that the semileage. Probably they can be made to expert the proper than the proper than the semileage. Probably they can be made to expert the proper than the proper than the semileage. Probably they can be made to expert the proper than the proper than the semileage. Probably they can be made to expert the proper than the proper than the semileage. Probably they can be made to expert the proper than the proper than the semileage. Probably they can be made to expert the proper than the semileage. Probably they can be made to expert the proper than the proper than the proper than the semileage. Probably they can be made to expert the proper than



The State Fair

SHOWS THE TRACTOR

To Iowa's Farm Population

Does the Herring Exhibit at Des Moines, to Be Repeated in Nebraska and South Dakota, Give You Something to Think About?

Power Hall used to be an exhibit space for a score, perhaps several score, dealers in agricultural implements, at the average state fair.

At Des Moines recently one distributer of power farm machinery took over the entire hall, staging an exhibit which set all Iowa talking.

What the Herring Motor Co. did at Des Moines is within the means of many distributers throughout the country. And the display and propaganda features could be applied, at least on a smaller scale, to dealers' exhibits at county fairs.

Particularly effective, according to reports from the fair grounds, was the Herring educational series on power farming, with moving pictures, entitled "Keep the Boy on

the Farm." Five thousand persons a day, in audiences averaging 600—the capacity of the hall -learned through the medium of the films what the tractor and its associated equipment mean in the life of the average farmer. "movie" ran daily from 7 o'clock in the morning until 8 at night. An interesting and connected narrative ran through the entire story and it went over big with the farmer audiences. The auditorium was crowded even during the racing program.

MOVIES TELL THE TRACTOR'S STORY
Iowa farmers learning how to "Keep the Boy on the Farm"

The Herring Co. held the largest individual tractor show ever attempted by any central western distributer. While it was of course a Fordson show, it was a demonstration of power farming in general, and was recognized as such by the other tractor dealers with exhibits on the ground.

A number of the farm implement dealers associated with the Fordson co-operated to make the show a big success by building specially finished implements for the display.

Probably the most talked about exhibit of the entire fair was the central platform in the Herring show. The platform was covered with green sod, and in the center was a "Silver" finished Fordson on a revolving platform. On the sod, at each side of the Fordson were an Amscodrill, a Dunham cultipacker, an Oliver plow and a Roderick disc. All of these implements were made up specially for the fair show and in point of finish they were quite the finest thing that the Iowa farmer had ever seen. They were all done in silver, enamel and gold leaf.

In another end of the hall belt driven equipment which may be run with the tractor was shown in action. Among the implements shown were spreaders, separators, ensilage cutters, bailers, and feed mills.

At the close of the Iowa fair the Herring Co. took the same exhibit to the Nebraska state fair at Lincoln, and

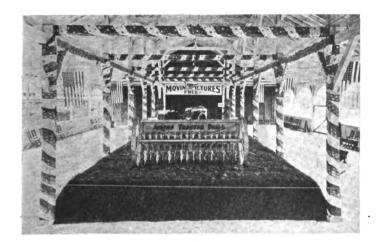
> later will make the South Dakota state fair at Huron, thus covering all three states in the Herring territory.

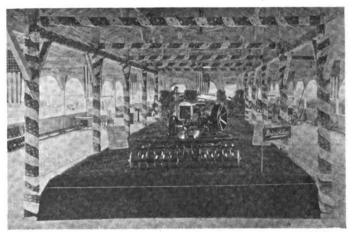
> The story of Herring's exposition is told here by word and picture. It may be a contributing factor to settling for next year the question which has agitated the tractor and associated trades: Shall we exhibit at the fairs?

Especially is the Des Moines experiment with the "movie" idea worth thought.

The film offers great possibilities

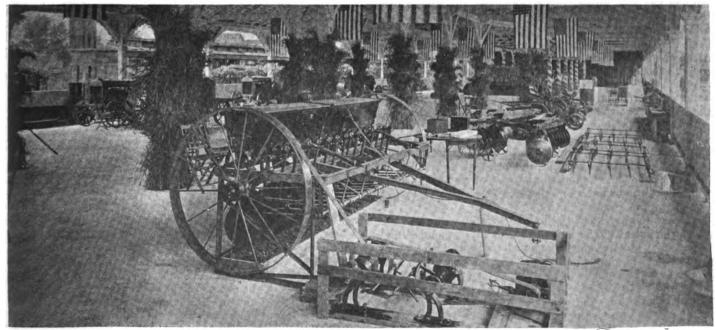
for demonstrating to sections of the public the capabilities of mechanical equipment—because it shows it in actual operation. It is particularly applicable to carry the story of the truck and tractor to farming communities. The chance of its being utilized as a factor in promoting these two classes of automotive products is worth investigation by the men in the business, from the manufacturer who naturally must foot the initial bill to the distributer and dealer who would stage the exhibitions in their home territories.





Filmed
at the
Herring
Implement
Show





WHEN SHOULD THE SHOWS BE HELD?

Men Who Make and Market Cars Offer Interesting Suggestions Pointing the Way to Better Business

UR business is worth while! We are proud of it! We are going to make it as efficient as human ingenuity can devise—a credit to the country!

This, in summary, is the sentiment that stands out in the countrywide discussion of show dates, a study which has drawn opinions from representative manufacturers, distributers and dealers in automobiles.

In the army of contributors to the discussion no one has dismissed the show question as irrelevant during a period marked by lack of need for stimulation of sales. No one has played the ostrich trick of suggesting that tomorrow will take care of itself. Unanimously the show has been rated as an institution in the automobile business, as an event which the public looks forward to and enjoys, at the same time absorbing the idea which the exposition is intended to crystallize—that the automobile is one of America's greatest utilities.

Because of the earnestness of their authors, the suggestions advanced for national and local show programs have commanded serious consideration by the optimistic, aggressive, thoughtful men who make up the majority of the industry. No one has got up on a high hill and shouted that the show dates are all right and must not be tinkered with. No one has held up as sacred the so-called national shows in New York and Chicago—because the National Automobile Chamber of Commerce is managing them. There has been a frank admission of business, geographical and climatic conditions—and psychological conditions—surrounding the shows as they have been, and a desire to get under way a consideration of the problem in such a way as to bring about standardization of dates for future years, with the good of the industry as the paramount aim.

This year's shows, for the 1919-1920 season, are scheduled. The dates will remain unchanged. But in mapping out the programs of future years the manufacturer, his factory branch manager, the independent distributer and the dealer will find suggestions worth investigation in the statements that have been advanced from practically every section of the country.

The midwinter show remains the favorite, for large and small cities. The spring display has strong support, particularly among dealers, but it is not without advocates among the manufacturers. The fall exposition stands lowest on the popularity chart, yet producers are in the ranks of its backers.

Then there are the super-enthusiasts who urge two shows a year, and some who want three—and the latter

The Seasonal Model; Is It a Mistake?

.......

ON the crest of a wave of unparalleled prosperity, the automobile industry is ideally situated to investigate itself, cast out the things that retard progress and strengthen those that make for better business.

A policy that will bear study is that of seasonal models, which has been brought to the fore as a by-product of the discussion of show dates. A few manufacturers bring out new cars when the need of improved designing is apparent. The majority of producers place their new models on the market in July, August and September. The latter practice, in some opinions, contributes in normal years to a seasonal sales evil which is a serious handicap to dealers and the industry in general.

This view is supported by the trade in Los Angeles. Ralph Hamlin, president of the dealers' association in the West Coast city, says the bringing out of annual models is not conducive to permanently established trade, and the attendant sales impetus at the time the models are brought out is temporary. California dealers, according to Hamlin, advocate that manufacturers make changes and improvements as the need becomes evident, and that they present these cars to the trade and the public in line with the routine, and not through special announcements.

Opinion among the Los Angeles dealers is strong against the seasonal models as an unnecessary evil, Hamlin declares. Seasonal models tend to upset the used car business and slow up new car sales previous to the customary time when factories are bringing out the new designs.

This is an opinion from the Far West, which does not claim to be all-wise, but which is a fertile field for car merchandising. Isn't it worth thought among men who make as well as those who sell cars?

group (Milwaukeeans?—you've guessed it!) are not talking through their hats. They have practised what they preach, WITH STRIKING SUCCESS. The two-show advocates include Detroit dealers, who are trying this year their first closed car salon in October, in addition to the midwinter display.

Harry G. Moock, general manager of the National Automobile Dealers' Association and the youthful yet experienced daddy of the car merchants—he was a dealer in Denver not so long ago—is for two shows a year.

"Since my connection with the automobile business,"

says Moock, "I have always maintained that an early winter show, showing winter models of the enclosed type, would materially assist the trade to continue to experience profitable business, following the summer season, and for this reason I personally am in favor of shows in the early winter months, displaying enclosed models.

"The past success of spring shows, showing models for the coming season of the open type, should, in my opinion,

be continued."

Motor World printed some show date opinions last week—from manufacturers, distributers, dealers, dealers' associations and show associations. Statements have flowed into the office by the score since then. Some of them follow:

For Three Shows

H. W. BONNELL, KISSEL CAR Co., Milwaukee.—We have found our three shows, midwinter show, fall fair show and spring opening, necessary to meet all requirements of the trade.

JOHN E. NELSON, DIENER-NELSON Co., NASH dealers, Milwaukee.—Our three shows a year plan is a result of more than ten years' experience. We have a big downtown show in January, the individual salesroom display in April, and a general state fair show in September. From the standpoint of retail sales we have found the fair ground show the most fruitful.

MARCH MOTORS Co., MITCHELL distributer. Milwaukee.— The January show has great advantages in the retail sales effort, but as a strictly dealers' sales proposition, shows in September and the spring opening in April are, of course, the most effective. We firmly believe that the time for the principal show in Milwaukee is in the midwinter, as we have the fair show in fall and the opening in spring to provide the additional stimulant to business.

For Two Shows

DETROIT AUTOMOBILE DEALERS' ASSOCIATION.—We are holding two shows this year, a closed car salon in October and a regular winter exhibit the first week in March, the same as last year. We have always been handicapped by the midwinter show, on account of the severe weather, and we feel that the enthusiasm stirred up in January gradually dies away, and by the time the real selling season opens the show has lost its effect. We have never before held a closed car exhibit in the fall. Just how it will turn out remains to be seen. We expect, however, that it will do much to bolster up the fall and winter business. My opinion at this time is that the two-show proposition is the real solution of the problem, for there is no doubt but that motor cars are seasonal merchandise, so far as body types are concerned.

THOMAS F. RAY, MILLER-RAY MOTOR Co., KISSEL and ALLEN distributer, Denver.—The ideal program is to have a high-class, exclusively closed car show in the fall and a big general automotive show to include gas engines, farm lighting, tractors and all automotive products in the spring. The salon should be a refined affair, not a show, but an exhibition. The spring show should stir up interest in the entire vast field of automotive industries at the time for general buying and planning to buy. Somewhere between March 10 and April 10 would be the practical time for this big affair in the Colorado

territory.

For Winter Shows

W. E. WISSLER, HERRING MOTOR Co., FORD dealer, Des Moines.—I am opposed to abandonment of the late winter or early spring show, and I think the national jobbers made a

Manufacturers' Views on the Show Dates

PACKARD

It is the consensus of opinion here that the shows should be held in the very early spring. I am inclined to believe that January is about a month too early, and that the Chicago show would really be more effective if it were held about two weeks later than in the past.—George R. Bury, General Distribution Manager.

PEERLESS

A LL things considered, I have personally always been favorable to the mid-winter show, for the reason that I feel quite certain that it serves as a stimulant to mid-winter buying, getting orders in advance, and enabling the dealer and manufacturer to a considerable extent to anticipate the demand of the ensuing year.—R. J. Schmunk, General Sales Manager.

SCRIPPS-BOOTH

It is our opinion that immediately after the first of the year is the proper time to hold the show, for the reason that new production has become set by that time, and the dealer and manufacturer

have more time to devote to interests concerning the automobile show.—A. H. Sarver, General Manager,

VELIE

ROM the manufacturers' standpoint, mid-winter shows, such as those held at Chicago and New York, are to be preferred. From the dealers' standpoint, shows can perhaps be held to greater advantage in the fall or spring, or even both, if the local dealer organization is strong enough to put on successfully a closed car and open car show.—H. T. Wheelock, Advertising Manager.

ROAMER

THE writer is very much in favor of a show in October or November, rather than the January shows that are held in New York and Chicago at the present time. All new models of open cars, particularly, are developed and ready for production in the early fall months, and if they are not, buyers are reluctant to take the older models. The dealers also do not want to warehouse any cars

during November and December, for the reason they are afraid something new will be shown at the Chicago and New York national shows, making the stuff they have out of date, and therefore hard to sell. The present date of holding the shows causes an enormous production through the months of February, March, April and May, which could just as well be spread over two or three of the winter months, namely, November, December, and January.—A. C. Barley, President.

DIRECT DRIVE

WE are inclined to think that the proper time for holding the automobile shows is in the late winter, say February, just before the opening of the season. In our judgment, automobilists wish to see the new designs before they are put on sale at retail.—Henry Crowther, President.

SENECA

W E believe that the best time for the shows is in the fall.— Ira Cadwallader, Manager Sales and Service.



mistake in changing the date of their show. If the show is held in the fall, you must key your sales organization for it. Then come the holidays, when there is always a let-down for a period of six weeks, when the spring business opens, and you are up against the proposition of getting your sales force on edge again; it can be done only with a late winter show.

EDWARD MOTOR CAR Co., DODGE dealer.—The results of the annual show in January are so fine that we would hardly dare to suggest a change. We found it particularly valuable for selling closed cars for immediate delivery and making

sales of open cars for spring delivery.

CADILLAC MOTOR Co. of Denver, by P. E. Chamberlain.— The show should be held in this country in late January or February. It would seem to me that the object of the show would govern its date. If it is held principally from the dealers' standpoint, certainly it should come at a time when new contracts are in order, when dealers have time to attend and when it is the right time to stimulate their enthusiasm. If the show is held principally to stimulate the buying of cars, it would seem to me the show should be held with reference to the display of new models, which in turn should come out at a large the display of new models shown, or what expense might be incurred in providing the right setting for the cars, Jack Frost, accompanied by ice, snow and dismal rain, is sure to follow in the wake of a fall show, and then what? All the time, money and publicity which you have spent on the visitors for the fall show and in creating the fever so essential to new buyers have gone, and the prospect listens to the still small voice within: "Wait—too cold—storms—car will be old by spring." And he waits. The spring show in February or March is a tonic of the strongest kind for the dealer, salesman and prospect. There is no better time to hold a show. Results have proven it.

E. C. McCurdy, Jordan dealer, Philadelphia.—March is the time for the show. The closed car is the all-year-round car, so people will buy as many closed cars at a spring show as

in fall or winter.

For Fall Shows

St. Louis Manufacturers and Dealers Association, Robert E. Lee, manager, St. Louis Automobile Show.—If only one show is to be held, it should be in October. If two can

What About the Car Thief?

Is the automobile thief running riot in your community?

If you are free of this hardest to catch of all present day criminals you are living in semi-paradise.

The problem of stopping motor car thievery is agitating dealers throughout the United States, for, with motorists, they are heavy losers.

In some states new laws have been enacted to meet the situation. In others dealers' associations, supported in some instances by automobile users' organizations, are bringing pressure to bear upon judges to inflict severe penalties under present statutes. And the trade in general is considering the question of federal legislation which promises soon to come to a head.

Motor World has investigated the situation in all sections of the country, and in Canada, and in next week's issue will print the first of a number of articles dealing with car thievery, methods adopted to combat it and suggestions offered to overcome a condition which makes the fugitive automobile thief from one state comparatively safe in another.

If you sell cars you face the prospect of losses through theft. You will want to read what other dealers, the states and the nation have done or contemplate doing to cope with this evil.

time when that sort of stimulant is needed. Unless manufacturers would adopt a uniform time for changing models, it would seem hard to figure shows from that standpoint.

WASHINGTON, OAKLAND Co., Seattle, by Harry D. Ostend.—Holding of the national shows in midwinter enables dealers from all parts of the country to attend. I believe that it is also a stimulant needed at that time.

LOUIS T. BLOCK, FORD MOTOR Co., Philadelphia, president Philadelphia Automobile Trade Association.—The early winter, the period when business is dull, is the logical time for holding the annual show. In spring or fall, preparing for a show would interrupt steady trade.

L. F. BOWERS, COLE distributer, Philadelphia.—January or February is the time when interest in motor cars is keenly alive in prospects, and it should be crystallized with a show.

For Spring Shows

JOHN H. MACALMAN, STEARNS-KNIGHT dealer, president Boston Automobile Dealers Association.—If you could change human nature in New England; if you could prevent northern New England becoming snowbound so that they would not need an incentive to get out and stretch in spring, you might have a fall show. But we have talked it all over time and again and find that March serves to satisfy the greatest good for the greatest number here.

CHESTER I. CAMPBELL, manager, Boston Automobile Show.

—The fall show has been tried and tested time and time again, with the same unsatisfactory results. No matter how

be held, let one be a closed car show in October and the other a spring show for open models in March. There is one advantage about a fall show which will appeal to many cities, and that is that any sort of open-air garden can be used for it, while the spring show demands a big building. The fall show brings the cars to the attention of the people when the business is dull and the new cars are still new.

St. Louis Storage Battery Trade Association, A. G. Stoeneman, president.—Our directors believe that the greatest good to the entire trade can be accomplished if the automobile shows are held in the fall. The new models are then new and we are approaching the dull season, when the automobile business needs stimulating. There was a time when the show should be held in the spring. Conditions have all changed since then, and we frequently show in February or March models of automobiles which have been on the street since the previous August. Another thing—when you persuade people to buy automobiles in the fall, and to use them then, you are doing much to convince them that they should have roads good enough to make use of their cars possible during the winter.

WILLIAM T. TAYLOR, APPERSON dealer, Philadelphia.—When the models are new and the weather is at its best, say in September or October, or even in early November, appeals to me as the time to hold the automobile show. October is best of all. Holding a show in the spring has the disadvantage of presenting to the public models six months old. Winter may be all right from the factory viewpoint.



CHINESE DEALS

They Are Putting the Truck Business Through the Same Foolish Period That Retarded Sanity In Car Merchandising

By Ray W. Sherman

"WHAT I wanna know is howenell a guy's gonna make any money in this business with a lot of crazy birds making Chinese deals and doin' nuthin' except makin' it hard for everybody else to do business."

And having got this off his bosom, Mike McChesney, dealer in the Stukko truck in and about Callawassa, spluttered about a bit, looked accusingly at all the rest of the Callawassa Motor Trade Association—and sat down.

The meeting did NOT leap into open

revolt. There was a moment's stillness, everyone waiting for the other man to produce a club or a can of salve and settle the matter. Then Lou Hilliard, the association's pacifist, arose in his calm way and said:

"Of course, there are times when it seems to one of us, perhaps, that the whole world is wrong, and sometimes maybe there is justification for this belief. One's immediate personal troubles often color the whole world in the eyes of the troubled man, but it is difficult for me to believe that our whole trade is as bad as Mr. McChesney's remarks would indicate, and it seems to me the situation has been very well covered and that a word to our very wise truck dealers is quite sufficient."

Whereupon the peacemaker sat down and most of the members thought the whole thing was settled—especially some of those who felt rather guilty at Mc-Chesney's indictment. But when there was need for air on any subject C. J. Reilly, dealer in the Sennett car and Sayanna truck, seldom felt backward.

"It may be very well to camouflage this situation," said Reilly, "and assure us all that a word to the wise is sufficient, but my own experience has been that unless the words are very emphatic they sometimes fail to register.

"Do you-" interrupted Hilliard. "Yes, I do," Reilly asserted. "I believe

there are a few things about this young and growing truck business that will



straightened out or we'll all be going through the

same old troubles we went through in the passenger car business. It's the strangest thing to me that some truck dealers don't seem to be able to profit by what they learned in the passenger car business. Instead of applying their passenger car knowledge and methods they seem to assume that an entirely new set of methods are necessary and that what is, is right.

"Now, as to this matter of Chinese deals, it's no joke or myth. They exist. They are being pulled off every day right here in Callawassa, and it's about time some of us waked up to the foolishness of the situation. If we can't sell trucks to business men in a businesslike way let's quit. Why fuss with something that loses us money and makes us look like fools and children in the eyes of the good business men who buy our merchandise?

"And just to show you what I mean, let me tell you a couple of things that have happened recently in this town. The other day one of our salesmen, who had been working on a prospect, came back and said the deal was off and that we didn't have a chance in the world.

"He said the Chinese deal he ran up against was this: Another dealer in this town was having trouble making a new truck sale, so it sold the prospect a used truck at a ridiculous price. The prospect was given a time payment deal besides, which ran for what to me seems a very long period. On top of that the prospect was given the privilege of turning the used truck in at the end of three months and buying a new truck, applying all he had paid on the used truck on the new truck. In other words, to swing the deal, the dealer gave the prospect three months' truck service for nothing."

"If you figure it at only ten dollars a day," said McChesney, "it amounts to a nine-hundred-dollar cut in price."

"That's about the truth," Reilly replied. "And another thing some of the dealers don't seem to get through their

noodles is that long trading is just as big an evil in the truck field as it ever was in the car field. One of my salesmen was talking to a business man the other day when the business man pointed out the window at an old truck and said: What would you allow on that?'

"The salesman looked at it and said: 'It's hard to tell from here, because I can't tell the condition. What is it? A "seventeen," isn't it?' The prospect said it was. 'Well,' said our salesman, 'if it is in average condition we could take it in for five and a half or six hundred, spend a couple of hundred on it and sell it for eight or eight and a half.' The prospect said another dealer was giving him ELEVEN HUNDRED DOL-LARS for the old rattler!

"And then there are some of us who can't get over the old free service idea! We can't get over the idea that what a man wants for his money is not value but quantity. Instead of selling him a good truck and good service we cut the price of the truck by a long trade, waste the profits that we should get, and then GIVE him a lot of service free that is no good because we can't afford to make it good. We don't have profits enough to make it good.

"All the way through it's a mess of Chinese deals. Some of us have a flash of sense once in a while, and do a real stroke of business, and once in a while there's a dealer who will pass up a deal rather than lose money. Smile if you want to! That's me! If I can't make money I won't do business. I'm not in business because I love my competitors or my customers or my employees or anybody else except little, old, bald C. J. Reilly, but I'll be nice to the whole world and give everybody a square deal because it's the only way I can get a square deal for myself.

"A Chinaman in the truck business as it's run to-day would be an asset because he would out-Chink some of our Chinese dealers and soon have it all to himself."

"Having had quite a few words-and very emphatic-to the wise," said Hilliard, "I, for one, consider the subject very fully covered."

Getting the

FARM LIGHT DEALER STARTED ON HIS JOB

Success of Pioneer Agencies Starts Inquiries of Distributers in Middle West, But Problem Still Is To Find and Train Men Capable of Making Good in This New Field.

UCCESS of dealers in various localities in the merchandising of farm lighting plants has been so conspicuous that the business, generally little known, is beginning to attract constantly widening attention.

Farm light is now entering upon the stage in which it offers an opportunity to men seeking to enlarge their business interests, or to take up an entirely new line of activity.

This, in short, is the opinion of W. L. Hanson, manager of the Hanson Lalley Light Co., Holdredge, Neb.

Business men are beginning to ask for agencies now, according to Hanson, who describes the chance of extending his territory as highly encouraging, compared with the situation when he took the Lalley representation two years ago. The distributer now is able to exercise selection in the appointment of dealers.

The experience of H. A. Dawson, manager of the Watson Lalley Light business at Wichita, Kan., tends to confirm this point of view. Dawson says that when he took over the business some months ago the agencies in Kansas, which had been placed through a branch at Kansas City, were for the most part unproductive and unsatisfactory, so that his work has been principally one of "elimination and substitution" in the effort to get men who could acquire the right perspective on the business and who could make a success of it.

The simple truth of the matter seems to be that no one knew what sort of dealer to get. Selling farm lighting plants was a brand new business and

To make a go of it, the newly established farm light dealer must

- 1. Have a demonstration plant, preferably a portable one, to sell the idea to the farmer on his own premises.
- 2. Advertise consistently in local newspapers.
- 3. Visualize the possibilities of the business.
- Look upon it as something worth his entire time, or much of it—not as a side line.

It is significant that in several localities automobile dealers are at the top of the list of successful farm light agents.

BUT THEY ARE MEN WHO HAVE DEPARTMENTIZED THIS BRANCH OF THEIR WORK, rather than treated it as a side line.

there was neither experience nor precedent to go by. All that could be done was to experiment with such material as was available, in the hope that discovery might fall upon a class of men who, by reason of experience or training, might meet the required conditions; or, failing that, so determine the qualifications the successful dealer must have that a plan of training the right sort of men might be formulated.

Essentially the problem still is to find and train men for the job of selling farm lighting plants, and this, essentially, is the task confronting every distributer who attempts to organize a territory.

Practically the same method for the selection and the training of the dealer is followed in both the Kansas and Nebraska territories, with such modifications as the personality of the state manager or the local conditions may demand. The following plan, therefore, outlined by Dawson, may be regarded as typical of the methods employed.

The blockman, having determined upon a desirable place for an agency, goes there and looks around for a possibility. He consults the banker, the newspaper man and other men prominent in local business circles, in an endeavor to locate a hustler who has the ability to work and the ambition to succeed. This person having been located, the project is outlined to him and his interest is aroused by an outline of the process of the plans whereby the company co-operates with its local agents. This operates with its local agents. shows him that he will not be left entirely to his own devices, at the same time giving him some inkling of the possibilities in the business.

First, a call is made upon the local newspaper. The newly appointed dealer is compelled to contract for a reasonable amount of display space, which he agrees to use continuously for at least three months. Also a preliminary list of prospects is secured from the newspaper man, as experience has shown the paper to be a better source of information in this respect than any other local agency, not even excepting the banker.

The dealer is instructed how to install his demonstration plant, which every dealer must have, and is assisted until after the cement block upon which it is



to stand has been located and set up. Complete and definite instruction is given the dealer about the compilation and use of a prospect list. This is made up in triplicate. One copy goes to the factory, one to the distributer and one is retained by the dealer. All three concentrate and co-operate on this list and no name ever comes down from it until a sale has been made or the prospect proven to be hopeless.

Expert Salesman Helps at Start

An expert salesman, called the "closing man," then comes on the scene and expends as many days as are necessary in thoroughly instructing the dealer on the fine points of his product and the ways of selling it. His function it is to see that the dealer gets started right, for experience has proven that a right start is the first essential to success. After the preliminary instruction is concluded, the "closing man" leaves the dealer for two or three weeks to do what the latter can in the development of prospects. Then he returns and helps close those orders which are ripe.

Dawson says that by this time the dealer is instructed and interested and either begins to get business or shows by his incapacity that he is scrap and must be discarded and replaced by a better man. In the latter event the whole process is gone through with again.

Admittedly this is slow, but it is sure. In the past preconceived notions of what sort of man should be selected to sell lighting plants delayed the progress of the business. For instance, a lot of time was wasted because of the idea that the electrical supply man was the logical man for the job. Generally speaking, however, he has been a failure. There being no other distinct class to go to, the men now are being picked individually and may come from any other vocation or line of business. There are men making a present day success selling lighting plants who have received their preliminary business training in all sorts of positions, and there are men even who have been practically failure: in everything else they have undertaken. They have been square-pegs in round holes until the right shaped hole came along in the farm lighting business.

Automobile Dealers Make Good

In this connection it is interesting to know that many automobile dealers have taken on the light plant and are making good selling it. For instance, of the sixteen dealers who are really producing in the Watson territory, eleven are automobile dealers, and among them are the men who have been the most successful up to date.

There are at present twenty-eight dealers in the Holdrege, Neb., territory of thirty-two counties, who are making good, and a very respectable proportion are automobile men. But, and this is very important, every distributer says it is hopeless for the automobile dealer to succeed in selling lighting plants un-



The farm light dealer needs a demonstration plant, and if it is a portable one, ready to set things going on a farmer's premises, so much the better. The truck shown above carries the Lalley Light demonstrating plant of the Hanson Lalley Light Co., Holdredge, Neb. It has been an important factor in the company's success

tess he visualizes the possibilities of the business and realizes that it must be handled as a separate department and not as a side line.

Indeed, this seems to be one of the principal difficulties in the business. Hanson says it is exceedingly difficult to get a man adequately to visualize the possibilities. Where a man really does comprehend what the business can be developed into he willingly departmentizes it, if he is an automobile dealer, or, if without a business, makes an exclusive occupation of it. Hanson himself prefers the exclusive dealer and is trying to develop such dealers as the backbone of his organization.

Demonstration Plant a Necessity

In every case a demonstration plant is a necessity. Preferably this is one which can be taken to the farm, for the greater number of sales are made on the farm. Thus the dealer is encouraged to have such a portable plant. This is not obligatory, but he is required to have either such a plant or one located in his place of business.

An ideal plant of the portable kind is shown in the accompanying illustration, which shows the demonstration car used by Hanson at Holdrege. This is a Ford with a specially constructed delivery type of body. Inside is a complete Lalley outfit. The engine and generator are in the back, with the batteries in a compartment on one side and a similar compartment on the other for tools, supplies and the like. A number of lines of wire and a supply of lamps are carried. These wires can be strung through the farm house and the barn, the lamps attached, the apparatus started and a complete demonstration made for the farmer showing him just what the plant will do and how it can be installed in his place. The cost of the outfit, not including the cost of the Lalley plant, is \$1.200.

Hanson has put into effect a novel plan for wiring. Where two or three dealers are located within a radius of 40 miles or so, they co-operate and employ one electrician to do all of their wiring. For instance, there is one such electrician at North Platte, Neb. He does the wiring for five neighboring dealers.

The dealer specifies standard installations. The electrical man makes the dealer an inside price, hence the latter makes a small profit on the wiring in addition to his regular commission on the plant. If extras of any kind are wanted an extra price is made. This plan is said to work very satisfactorily and is a great convenience and advantage to the dealer, since it not only relieves him of the work of wiring, but insures every job being done right.

The business of selling farm lighting plants is in the formative stage. The problems are new but they are being worked out in a logical and practical manner. All that is sure is that there are enormous possibilities in sight, and here and there men of ability and aptitude are beginning to realize on them. It is interesting and significant that some of the dealers who are making the greatest measure of success, and who are making money, are automobile dealers.

They are succeeding because they are experts in sales promotion, because they have already a certain clientele among the farmers through sales of cars, trucks or tractors, and because they are making the farm light proposition a definite, separately managed branch of their business.

Either under their own supervision, or with a farm light manager using the go-out-and-get-'em tactics of the wide-awake automobile salesman, they are taking the benefits of convenient and adequate lighting and electrical service on the farm into large sections outlying their home towns.

A Department of

BETTER MECHANICS

No. 116

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the twelfth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. Howard Pile

PART I—THE POWER PLANT (Concluded)

FORD radiator brought into the shop for repairs is usually in such bad shape that it has to be taken up to the bench and taken down to effect proper repairs. The condition is due in many cases to the ignorance or carelessness of the operator, and when the cause of the trouble is ascertained, some advice to the operator would not be amiss. The causes of leaking may be divided roughly into-

1—Freezing.
2—Shaking apart through rough driving or the use of solid tires.

3-Radiator support breaking from same causes as No. 2.

4—Chafing caused by worn hood leathers.

5-Puncture caused by accident.

What Has Been Covered

I-The Power Plant

- 1—Removing the engine from the car.
 2—Taking down the engine.
 3—Testing and straightening the crankshaft.
 4—Rebabitting the cylinder block.
 6—Reboring the cylinders.
 6—Fitting new pistons.
 7—Fitting the piston pin.
 8—Aligning the connecting rod.
 9—Fitting the rings to the pistons.
 10—Burning-in the bearings.
 11—Testing and overhauling the magneto.

- Testing and the neto.
 Overhauling the transmission.
 Minor engine repairs.
 The carbureter.
 Assembly of engine and transmission.
- mission.

 -Testing the engine.

This Week

The Radiator Engine Numbers

Regardless of the cause of the leak or the kind of leak, the repairshop should be equipped to fix it. There are two separate and distinct operations to be gone through in overhauling the radiator; testing and repairing.

A testing outfit should include:

1-A testing tank, which is a wooden trough large enough to immerse the whole radiator with sufficient room to allow the hands to get around the edges. Sometimes this trough is built out of wood alone, the joints being made very close and caulked with cotton, the same as the seams in a boat. The usual way, however, is to have it lined with a sheet of galvanized iron or other metal, the joints being soldered. This absolutely prevents any leaking as long as a hole is not punched in the sheet metal, and in this case the wood only acts as a support. It is very convenient to have a drain board on one side of the tank so that after the radiator is tested in the water, it can be laid on the board to drain and the water will drain back into the tank. This makes for a dry shop as there is no necessity for splashing water all over the floor.

2-A set of plugs to stop up the inlet

and outlet water connections and the filler neck. Some of these are shown in Fig. 105. Each one consists of three rubber packing disks and a soft rubber disk, all mounted on a belt and capable of being compressed by a steel block and a cam. The disks are cut to fit the inlet, outlet or filler neck as the case may be, there being one plug for each of these openings. In operation, the plug is shoved in as far as it will go and the cam is then tightened. Tightening the cam compresses the rubber and expands it outward, forming a water and air-tight opening. When it is desired to remove the plug, the cam is simply pulled up and the plug comes right out.

3-Air pressure from a tank or a

Next Week

The Front Assembly

Future Installments

Rear assembly Chassis frame and dash Body, top and windshield The steering gear



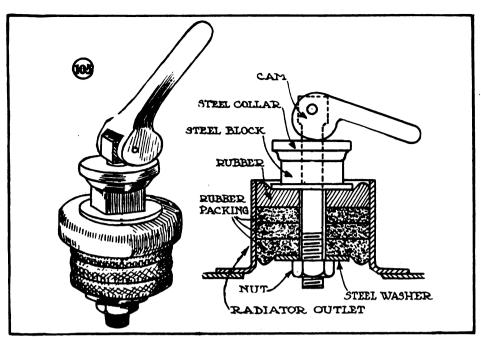


Fig. 105—Rubber compression plug used for making tight joints at inlet and outlet pipes and filler cap. The left view shows the cam released and at the right is a sectional view with the cam down

shop pump is necessary. The pressure is applied to the overflow pipe after the other openings are closed up, then the radiator is immersed in the water contained in the testing tank. The air pressure will force its way through any leaks that may be in any part of the radiator and these can then be marked for the repairman. After the repairing is all finished, the radiator should be tested again to check up the work and insure the stoppage of all leaks. The pressure used for testing radiators should not exceed a maximum of 15 lb., and 10 lb. will be found sufficient to locate any leak. More than 15 lb. is likely to put a serious strain on the headers. In case this low pressure is not available, the line pressure in the shop should be reduced by some kind of a regulator. .

4—It is convenient to have full line pressure of from 100 to 150 lb. available for blowing the water and dirt from around places in the radiator that are to be soldered. This should be brought from one of the stop cocks through a rubber or flexible metallic hose to a short piece of pipe drawn out to a sort of jet about 3/16 in. diameter. After the radiator has been tested, this jet of air will quickly drive off the water and dry the spot up so that it can be soldered.

The results of the test and a careful exmaination will indicate the kind of a repair to make on the radiator. A slight leak in one, two or three tubes can be repaired by inserting special thin repair tubes in the original tubes, soldering these in place. This will stop the leaks, but the additional thickness of the metal at these points will result in a reduction of the cooling efficiency of the radiator, and this kind of repair should not be used when more than three tubes leak.

When the support which extends across the lower part of the radiator is broken

loose at the sides through jarring, the outside bands of the radiator are usually cracked or broken also, and if no serious damage had been done to the tubes the support can be anchored again and new side panels put in the radiator. In many cases, however, the breaking away of the support also chafes or tears some of the tubes and a more extensive repair job is necessary.

In any one of these repairs, the radiator will have to be torn down by unsoldering the sides and opening the top and bottom headers. New tubes or repair tubes can then be inserted without any trouble.

The following is a list of equipment that is necessary in radiator work:

Oxy-acetylene welding outfit with smallest tip.

Solder.

Soldering compound.

Scrapers.

Light hammer.

· Punch.

Knife.

Pliers.

Rod for straightening tubes.

Emery paper.

1—The welding outfit with small tip is used both for soldering and for breaking joints. Properly used, it can melt the solder just at the desired points without allowing other joints to come apart. A large flame is absolutely useless, as the flame and consequently the heat cannot be confined to a small compass, and when you solder up one place two or three other places come unsoldered.

The soldering compound used depends largely upon personal likes and dislikes. The most common material is muriatic or hydrochloric acid which has had zinc dissolved in it until it will not act on any additional metal which is put into This is called "killed" acid because it still retains its power of cleaning the metal, but has lost its strength so that it will not bite very deep into the metal. The purpose of a soldering compound is to clean the dirt and oxide off the metal so that the solder can get hold. Acid, although commonly used, is not the best material in the world to use because some of its power is still available, and if the joint is not perfect a small enclosed bubble of acid may in time eat through the joint. Various compounds

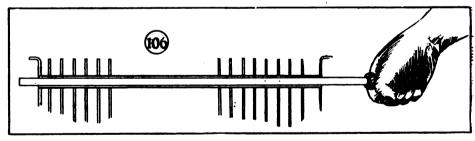


Fig. 106—A bent tube is straightened by running a rod through it

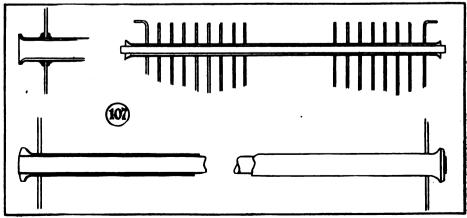


Fig. 107—These sketches show the stages in inserting a tube

of rosin and sal ammoniac are just as effective on brass and copper, the usual components of radiators, and there is no after affect. However, the metal should be scraped or cleaned up with emery paper first, whereas the acid does not need this preparation unless the dirt is caked on too thick.

Inserting Repair Tubes

To permit of the insertion of repair tubes, the radiator tubes must first be straightened. This is done by running a length of rod through each tube, the rod being fitted with a file handle and having a rounded end so that it will push out the bent places without cutting the metal away.

1—Make both ends of the leaky tubes bell mouthed and scrape the insides clean with a knife as far as can be reached.

2—Slide the repair tube into the other tube and cut the end off so that it extends about 1/16 in. at each end.

3—Apply soldering compound to the tube ends.

4—Using the small tip of the gas jet, heat the tip of the thin inner tube and run the solder into the bell shaped opening that has been formed.

Where the radiator is very badly damaged, it may be wise to insert a whole new core and if the headers and sides are also in bad shape, a new radiator would give more satisfaction and be little more expensive than repairing the old one.

In replacing the radiator make sure that the springs are in place on the lower parts of the radiator studs and that the nuts are not set down too hard so that the spring action is destroyed. This is the most frequent cause of radiator trouble. The springs are placed there to take the strain from the radiator and if they are omitted or their action is reduced or made inoperative, the radiator will not last long and will soon need rebuilding again.

Engine Numbers

Every Ford engine when it leaves the factory has a number stamped immediately above the inlet water connection at the side of the cylinder block. This number is not only useful in identifying the model and date the car was turned out of the factory, but it is also necessary in most states for the owner to supply the number to the automobile registration authorities in order to secure a license.

When replacing a cylinder block in an engine, therefore, the old number that appeared on the block should be stamped on the new block. For this purpose a set of numbering stamps is necessary. In some states it is even a criminal offence to be in possession of a car without any number at all. It is, therefore, important to attend to this detail.

The following list gives the engine numbers of all the machines turned out by the Ford Motor Co., with the month and year that each was turned out of the factory. This list may be used for identifying the parts which may have been changed from time to time, and will also serve as an indication of the age of the car for purposes of buying and selling. When the number of the engine does not agree with the age stated by the owner, there may have been something entering into the matter that does not appear on the surface, such as the substitution of another engine. In such cases inquiry of the factory or nearest branch will no doubt clear up the difficulty.

Engine Numbers by Yearly Models

1911	Model	(Oct.	1911-Dec.	1911)	٠.	 	 	80,000	to	88,900
			1912-Sep.						to	147,300
			1912-July						to	299,200
1914	Model	(Aug.	. 1913-July	1914) .	 .	 	299,200	to.	517,800
1915	Model	(Aug.	. 1914-July	1915) .	 	 	517,800	to	855,500
			. 1915-July						to	1,362,213
1917	Model	(Aug.	. 1916-July	1917) .	 	 	1,362,213	to	2,113,500
1918	Model	(Aug.	. 1917-July	1918) .	 	 	2,113,500	to	2,756,251
1919	Model	(Aug	. 1918-July	1919) .	 	 	2,756,251	to	3,277,851

Engine Numbers by Months

1908				
Engine Number	Month			
I-II				
[1-10]	November			
101-309	December			
1909				
309-646	January			
546-1,052				
1,052-2,025				
2,025-2,691				
2,691-4,036				
4,036-5,980				
5,980-8,107	<u> </u>			
8,107-9,840	· ·			
9,840-11,148				
11,148-12,405				
12,405-13,132	November			
13,132-14,161	December			

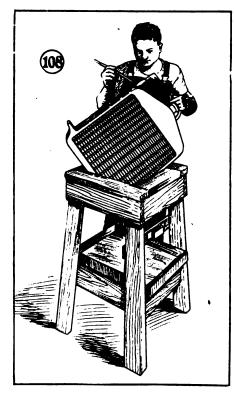


Fig. 108—This is a handy stand for soldering and working on a radiator

rs by Months	
1910	•
Engine Number	Month
14,161-15,500	January
	February
16,600-19,700	March
19,700-23,100	April
	May
	June
	July
	August
	October
32,500-33,700	November
33,700-34,900	December
· · · · · · · · · · · · · · · · · · ·	
1911 34,900-37,000	January
	February
	March
	April
	May
• .	June
	July
62,100-66,700	August
66,700-70,500	September
70,500-83,100	October
83,100-86,300	November
86,300-88,900	December
1912	•
88,900-92,000	January
	February
95,900-103,800	March
	April
	May
	June
	July
	August
	September
	October
	November
101,200-1/1,300	December
1913	•
171,300-186,900	January

186,900-203.300 February

203,300-218,900 March

218,900-242,300April

242,300-260,000 May

260,000-282,700 June 282,700-298,200 July

298,200-306,800 August 306-800-314,800 September

314,800-324,900 October

324,900-344,900 November

344,900-370,400 December



1914		Engine Number	Month
Engine Number	Month	1,510,500-1,570,700	November
isignic itamor	lanuary	1,570,700-1,614,600	December
370,400-395,500	Fahruary		
395,500-419,500	March	1917	
419,500-447,600	April	1,614,600-1,680,000	January
447,600-473,200	May	1,680,000-1,739,900	February
473,200-490,920	lune	1,739,900-1,812,000	March
490,920-507,102	Inle	1,812,000-1,888,000	April
507,102-517,800	Anguet	1,888,000-1,968,629	May
517,800-538,200	Sentember	1,968,629-2,044,100	June
538,200-558,300	October	2,044,100-2,113,500	Jul y
558,300-583,400	November	2,113,500-2,162,800	August
583,400-599,100 599,100-611,100	December	2,162,800-2,231,000	September
599,100-011,100	. December	2,231,000-2,310,400	October
1915		2.310,400-2,383,900	November
611.100-614.200	. January	2,383 900-2,449,100	December
614.200-630.500	. redruary	_	
630,500-682,400	. March	1918	_
682,400-723,500	. April	2,449,100-2,503,200	January
723,500-805,500	May	2,503,200-2,558,200	February
805,500-830,700	. June	2,558,200-2,611,400	March
830,700-855,500	. July	2,611,400-2,657,500	April
8cc c00-881.000	. August	2,657,500-2,700,800	May
881.000-013.000	. September	2,700,800-2,735,700	June
013.000-040.000	. October	2,735,700-2,756,251	July
040.000-085,400	. November	2,756,250-2,774,600	August
985,400-1,029,200	. December	2,774,600-2,787,800	September
		2,787,800-2,792,300	October
1916	T	2,792,300-2,805,100	November
1,029,200-1,071,800	. january	2,805,100-2,831,400	December
1,071,800-1,119,000	Mosch		
1,119,000-1,167,900	. March	191 9	_
1,167,900-1,219,400	. Aprii	2,831,400-2,880,170	January
1,219,400-1,272,000	. May	2,880,170-2,933,000	February
1,272,000-1,326,900	june	2,933,000-2,997,100	March
1,326,900-1,362,213	jwy	2,997,100-3,067,700	April
1,362,213-1,400,900	August	3,067,700-3,140,000	May
1,400,900-1,452,200	September	3,140,000-3,210,800 3,210,800-3,277,851	june Inlv
1,452,200-1,510,500	. October	3,210,000-3,277,051	Juiy

SHOOTING TROUBLES

Piston Grooves

Editor Motor World: Will you kindly publish in Motor World the various types of piston rings now used in the various types of motor cars?

Has the groove always been a straight groove in the piston?—H. B. Johnston, Seattle, Wash.

Answer—Practically all automobile engines employ piston rings made of gray cast iron.

In the great majority of engines, a single ring is used in each groove, this ring having a rectangular cross section. Sometimes the cross section is uniform all around the circumference, in which case the ring is referred to as a concentric ring, while in other types the section is greatest midway between the ends, and is known as an eccentric ring.

Rings of rectangular section have been used from the very beginning of reciprocating engine history. In the early steam engines of James Watt, wood sectors were used in the piston ring grooves, which were pressed against the cynnder wall by means of steel springs

underneath them. The object in making the rings eccentric is to approach uniform pressure per square inch of bearing surface all around the rings. The way the rings are usually made, if they are turned concentrically, the pressure will be greatest near the ends, and at certain other points.

Recently, a great many special designs of piston rings have been placed on the market, the object of which is to produce uniform pressure against the cylinder wall around the ring, and also to eliminate the possibility of gas escaping past the ring at the slot. Some of these piston rings are double rings, one inside the other. In that case, the slots in the two rings are placed at the opposite ends of a diameter.

There are two general methods of making piston rings. The first consists of turning the rings to a diameter somewhat larger than the cylinder bore, usually about 3½ per cent larger. Then, a section of the ring is cou out, the ring is compressed, and held in a clamp, and it is turned and ground on the outside until it is of exactly the same diameter as the cylinder bore. When released, it

will fit the cylinder bore, and exert a pressure against same over its entire circumference. The other method consists in turning the ring on the outside to the exact diameter of the cylinder bore, cutting it, then expanding it over a tapering mandrel to a larger diameter, and while in this condition subjecting it to a heat treatment. Instead of expanding it in this way, the ring may be expanded by peening on the inside.

Piston Pin Bearings

Editor Motor World: We wish to take up with you the technical question: "Which kind of piston pin is the proper one to use?"

Up to a few years ago all four cylinder machines used the pin which is stationary in the piston, while in all six cylinder engines now in use, the pin moves in the piston while the connecting rod is stationary.

We have found that the former method is more successful, as the pin does not require replacement as often as on the other style.—Reedsburg Automobile Co., Reedsburg, Wis.

Answer—There are three possible constructions as regards the connection between the piston and connecting rods.

In the early years of the automobile industry, it was the almost universal practice to fasten the piston pin in the piston bosses, and fit a tronze bearing in the top end of the connecting rod, in which the piston pins moved freely. This made it possible to make the length of bearing equal to about one-half the cylinder bore. Later on, it became customary to fasten the piston pin in the top end of the connecting rod, and let it have its bearing in the piston bosses, the advantage of this being that the total bearing length could be made greater. Quite recently, and especially in connection with aircraft engines, the practice has been introduced of allowing the piston pin to float both in the connecting rod and the piston bosses, fitting a ring similar to the regular compression rings over the end of the piston pin so that it cannot score the cylinder bores. The pin will then turn either in the connecting rod or in the piston bosses, in whichever bearing it is the freest. In the latter case, the whole surface of the connecting rod bearing and the piston boss bearing serve as bearing surface, either the one or the other as bearing surface at a time, and probably nothing would be gained as regards the length of time required to produce a certain amount of looseness.

The reason for using this last named construction is undoubtedly that it gives a greater degree of reliability, because if one bearing should stick, the pin could turn in the other bearing.

The length of wear which you can get from a piston pin depends upon the amount of bearing surface in proportion to the explosive pressure and inertia forces, and not upon whether the pin is fastened in the connecting rod or in the piston bosses. It also depends, of course, very largely upon the efficiency of the oiling means.

Editorial Observation

Does Your Town Need Advertising Reform?

HE Associated Advertising Clubs of the World has launched a campaign to help purify automobile advertising.

Through its national vigilance committee it is seeking to bring about adoption of uniform, honest advertising standards, which can be submitted by local vigilance committees to dealers in their respective communities. Seeking to guide rather than to lead the automobile industry in its merchandising publicity, and to aid in exposing and forcing into retirement the tradesman who puts profit above a square deal, the association has asked car, truck and tractor merchants to advise it of advertising evils existing in their cities, with suggested remedies.

The association makes the pertinent point that truthful advertising is effective advertising. It declares also that nearly all misleading advertisements, in the automotive industry as well as in other lines, are the result of practices which have gradually taken root in various communities, and that such methods are continued largely because no one has taken the trouble to tabulate them and to suggest that they be eliminated.

In communities where standards have been adopted, the association says, advertisements have been improved not only as to their truthfulness, but have yielded better results.

As a means of starting discussion of its proposal for standardizing automobile advertising practices, the association cites a policy worked out for dealers in Baltimore, which, though not completely covering the field, has proved of benefit in preventing untruthful advertisements. The Baltimore standards are:

First—The word "USED" should be placed in every advertisement advertising a car that has been used and is not absolutely a first hand car.

Second—Automobiles advertised for sale by used car dealers by means of copy so worded as to lead the public to believe that they are private machines for sale by private parties and giving varied reasons why they are forced to dispose of their cars is a violation of the Maryland law on fraudulent advertising and therefore MUST not be practised.

Third—When advertising used cars and stating the year of the model it is important that the exact year be given. It has come to our attention that dealers have camouflaged old cars with new mud guards, etc., and advertised them as late models. This is a gross violation of the law.

Fourth—When advertising a car with com-

plete equipment it will be understood to mean all necessary equipment for ordinary operation and comfort.

Fifth—When advertising tires the word "SEC-OND" should be used for tires not 100 per cent perfect in manufacture. These tires should not be advertised by names which lead the public to believe that they are a brand of perfect tire.

Sixth—Perfect tires or those of standard make advertised either as "PERFECT TIRES" or simply by their trademarked name, as Firestone, Goodyear, etc., will be understood to be of first quality and 100 per cent perfect in manufacture.

Seventh—In advertising the upholstery of a car, or in advertising re-upholstering, the word "LEATHER" will be understood to mean only "the skin of an animal tanned or dressed." This also holds good in the advertising of tops.

Eighth—A gallon of "GASOLINE" will be understood to mean a standard gallon and nothing short of same. Short measuring with measuring machines, etc., is a violation of the law on weights and measures.

Ninth—All automobiles and parts thereof, and all accessories MUST be advertised truthfully.

Is your city without definite standards of advertising? Is it afflicted with dealers whose selling methods are not above criticism? If you believe the time is ripe for reform let the experts of the Associated Advertising Clubs help you put it into effect. Frame your suggestions and send them, through us or direct, to the association.

Can't lose Canada. Just as the public begins to take the Prince of Wales as a matter of course along comes Toronto with a national motor show so big that it overflowed the Transportation Building and three annexes at the Canadian National Exhibition.

Judging by the mileage involved in the President's peace treaty speechmaking tour, his voice must be capable of unlimited adjustment.

"No guarantees," says the tire dealer. "Oh, for a guarantee that I will get deliveries!" says the car dealer. It's a queer world.

There are 6,353,233 cars and trucks in use in the United States. And some folks still call it the automobile game.

It costs three cents a mile to ride on the railroads, and there are no rebates. But if you travel on tires—

"Chinese deals," cries "Reilly" on page 17. So the truck business, too, has its Shantung problem!



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

May Recover Price of Unsatisfactory Car

The Supreme Court of Pennsylvania recently decided that where the seller of an automobile agrees that, if it is not satisfactory, it may be returned and the buyer may take back his purchase money or another car if he chooses to do so, the dealer cannot complain of the buyer's failure to rescind the contract promptly and return the second automobile received if the delay is wholly due to the dealer's request.

Suit was started by the buyer of a car against the dealer to recover the purchase price paid for the automobile. Judgment was rendered in the buyer's favor in the sum of \$2,128.72 and was affirmed when the dealer appealed.

It appears that the buyer sued the dealer to get back the purchase price of an automobile which he had bought under an agreement that if it was not satisfactory the money would be refunded

The facts in the case as the court stated them were:

"It appears from plaintiff's evidence, which the jury found to be true, that when he contracted to purchase the automobile it was agreed that if it was not satisfactory to him he could return it, and defendant would either give to him another one or refund the money, and if he took a new one under that arrangement, and it also was not satisfactory, defendant would refund all he had paid. The first automobile he received was not satisfactory, and he returned it, receiving a more expensive one, and paying to defendant the difference in the purchase prices; defendant then again agreeing to refund the whole amount if the new one was not satisfactory. Plaintiff claimed it was not satisfactory, and that he was compelled, in the course of some three months, to send the car back to defendant's shop some 20 or 25 times for adjustment, repairs and changes. He repeatedly offered to return it, but was requested not to do so, but to allow defendant to try to remedy the defects. Finally, defendant's manager fixed a time and place to further discuss the matter with plaintiff; but the manager did not keep his appointment, whereupon plaintiff promptly thereafter returned the automobile and brought this suit to recover the amount paid."

The court, therefore, held that as long

as the objections were made in good faith and not merely capriciously the judgment for the buyer was proper. Randal vs. Mitchell Motor Car Co. 106 Atl. Rep. (Penna.) 783.

Garageman Must Use Prudence

One of the most interesting cases that has come up for some time and which involved the question of a garageman's liability for damage to a car by reason of having frozen, while in his garage, was recently decided in the New York Supreme Court.

The car owner kept his automobile in dealer's garage under a contract providing that dealer should wash and care for the car, for which owner paid \$27.50 a month. Said garage was steamheated. Car owner had kept his automobile there for about 10 years. On December 30, 1917, car owner used his car and returned it to the garage in good condition. On Jan. 1 car owner tried to use his car but found that the water in the cooling system was frozen and that the water jacket had burst. To recover the damages sustained this action was brought.

The facts are practically not in dispute. Although it was unusually cold weather, the dealer ran the motors of some cars and emptied the water from the cooling systems of others to avoid freezing, but took no measures whatsoever with respect to car owner's car. Dealer apparently seeks to excuse this by claiming that he might rely upon the presumption that the car owner had some anti-freeze solution in his radiator, that dealer had no authority to empty the contents of car owner's cooling system and that car owner took with him the key to the ignition system when car owner left the car in the garage. It also appears that car owner lived only about 700 feet from the garage and his residence was well known to the dealer.

The court held that if the garageman was unable to maintain the temperature of his steam-heated garage above the freezing point, he should have taken precautions to prevent the cooling system of the motor car from freezing. The court further held that it was his duty to exercise such care and precaution as an ordinarily prudent man would have exercised in the care of his own property. Smith v. Economica! Garage, Inc., 176 N. Y. S. 479.

Notes of Recent Motor Vehicle

The theft of cars has been receiving the attention of many state legislatures this spring.

In New Jersey, under a law which went into effect on July 4, it is now necessary for any one who wishes to dispose of an automobile to show a bill of sale, witnessed by two persons and acknowledged before a notary public. This law applies where the seller is a dealer or a private party.

The important provisions of this law regarding bills of sale are:

"In all sales or purchases of a motor vehicle directly from the manufacturer or through an agent or agency of such manufacturer there shall be issued to the purchaser a manufacturer's bill of sale, which bill of sale shall contain the manufacturer's number on the engine or motor of the vehicle so sold. In all other sales or purchases of motor vehicles the original bill of sale shall be assigned by the seller to the purchaser by an assignment witnessed by two persons and acknowledged by the seller before a notary public. All such assignments shall at all times be kept and attached to the original manufacturer's bill of sale; provided, however, that in the event the said motor vehicle was purchased from the manufacturer or his agent prior to the going into effect of his act, then, instead of assigning such assignment to said original bill, the seller shall execute a new bill of sale, witnessed by two persons and acknowledged before a notary public. The penalty of motor car stealing is a fine not exceeding \$2,000 and imprisonment not to exceed two years."

The state of Pennsylvania has also adopted a law very similar which requires duly attested bills of sale. Conviction for theft of a motor car is punishable by a fine of not exceeding \$5,000 and by imprisonment for not more than 10 years.

Firestone Gives Free Legal Advice

AKRON, OHIO, Sept. 4—The Firestone Rubber & Tire Co. has established an employees' legal department with Wendell Wilkie in charge. This department will give employees legal advice free of charge. Wilkie is a graduate of the law department of the Indiana University.

SCIENTIFIC CONSTRUCTION

GARAGES

SHOWROOMS

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REPAIRSHOPS

Plan No. 1

Ford Sales, Service and Stock

Character of business—Ford car sales, service, stock of parts, tires, vulcanizing, battery work, accessories.

Details wanted—One story building 60 x 150 ft., no posts, large stock room to accommodate \$12,000 worth of parts, tires, etc., small storage space as room will only be needed for cars in stock and those waiting repairs.

Name—"Motor World Reader, Caldwell," Tex.

Answer—Mainly, our plan differs from yours in that we have provided an accessory store. This feature is just as necessary as a showroom and we strongly advise you to embody it in your building.

We have also separated the vulcanizing and battery departments, as you will find it more satisfactory to keep these two activities separate even though they may be attended by one man.

The stock room has been made unusually large as you requested and we think that it should easily hold the stock of parts which you contemplate carrying. It would be much better, of course, if you could have some arrangement whereby the parts department was next to the shop, as there is a continual stream of new parts going into the shop all the time, and the time taken by the men in going across the storage department to get the parts would be quite an item. You might even work this out by having a small auxiliary parts room in the shop, this to be stocked with a moderate quantity of the parts most used, the stock being replenished daily or twice daily from

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

the main stock room. Large units like axles, etc., could be kept in the main stock room and a boy could take care of the requisitions.

Plan No. 2

Ramp Not Advised

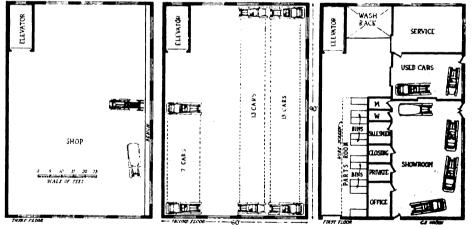
Character of business—Dodge and Nash sales and service.

Details wanted—Three-story building, 60 x 90 ft., showroom, service shop, wash rack, parts room, private offices, storage, third floor for main service shop. Desirability of using a ramp.

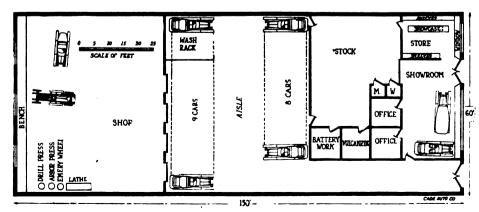
Name—C. Vinson Motor Co., Savannah, Ga.

Answer—Your showroom and office layout is excellent and therefore we have not changed it. Neither have we changed the size of the room marked service department, although we do not understand why you need so large a room.

The second floor we have devoted entirely to storage and the third floor to the shop.



Plan No. 2—Design of three-story building, 60 x 90 ft., for the C. E. Vinson Motor Co.



Plan No. 1—One-story building, 60 x 150 ft., for the Cade Auto Co.

We do not believe that a ramp is worth while for your building. It will take up considerable space and will interfere to a considerable extent with the layout. In your particular case, we feel that you will be better satisfied with an elevator.

The parts department has been provisionally placed on the first floor in back of the offices. It is enclosed with a chicken wire partition. It may be that with the amount of service indicated by the space available for this branch of the business it would be found more convenient to have the parts department on the third floor, closer to the place where most of the parts would be needed. If necessary parts could be supplied to own-

ers by means of a dumbwaiter or by a smaller auxiliary parts room.

Cars would be run into the small service shop and the used car department on the first floor through the doors at the rear of these rooms unless it is desired to have large doors in the side of the building for that purpose.

Plan No. 3

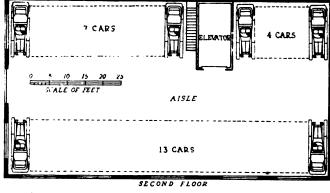
Two Stories on a 90-Ft. Front

Character of business-Buick, G. M. C. and Samson tractor sales, service. storage.

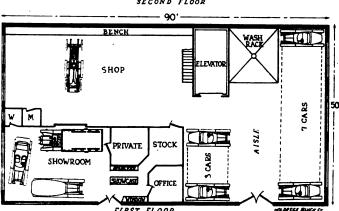
Details wanted-Two stories on lot with 90 ft. front and 50 ft. depth, furnace room in basement, showroom for one truck and two cars, show case with shelves behind for accessories and supplies, small stock room for parts, two private offices, one for executive and one for accountant, two toilet rooms, shop in rear with elevator and wash rack. remaining room for storage of cars that are driven out at once and those to be worked on at once, second floor to be left undivided for storage of all other cars.

Name-Holdredge Buick Co., Holdredge, Neb.

Answer-On this page, at the right, is



Plan No. 3-Two-story building with basement designed for the Holdredge Buick Co.



plan to meet your requirements. Please note that space in front of the elevator should not be used for car stor-

age except when the second floor is full; thus the elevator approach is always clear when it is needed.

How Ingenuity Solved a Garage Problem

ST. LOUIS, Sept. 5-It does not always pay to quit when the expert says William L. Johnson, president of the Johnson Automobile Co., persisted when the experts said "impossible" and he has a highly treasured adjunct to his cleaning department as a result.

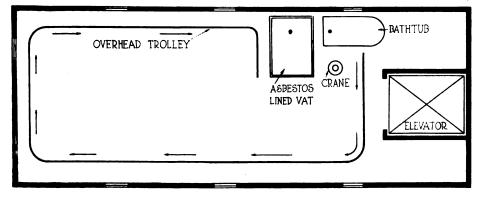
Johnson's shop is on the second floor and his power and heating plant is in the basement. He wanted a tank of boiling Lancaster mixture on his second floor but the insurance inspectors would not stand for a large gas flame there. So Johnson thought he would build an iron tank on the second floor and heat it from a hot water boiler in the basement. He sent for the heating expert and he said the steam or hot water coil would not boil a large tank of the mix-

ble on the device as planned to the exfloor and fitted a lid, also reinforced it and the whole packed well in asbestos

ture that far from the plant under a certain expense that he named. This was prohibitive. Johnson studied it over for a time and sent for a plumber. This plumber had done much work for Johnson and expressed a willingness to gamtent of his work. So they got a welded iron tank about 4 ft. square, large enough to hold any Ford part that was to be cleaned, and installed this on the second with asbestos. The tank is built exactly like a square ice box with the hot water pipes around the iron box inside the asbestos covering. Then they put a 30 gallon pressure boiler in the basement and floor with hot water pipes placed around and connected it with the tank pipes. The boiler and the upright pipe were well covered with asbestos so that no heat escaped. The result is that the tank boils merrily within a few minutes after the boiler is fired. The plan is made possible by the almost complete conservation of heat by the asbestos packing around the boiler and the pipes. An old bathtub, the kind they have in houses. stands by the Lancaster mixture tank. When a car enters the shop any part that needs to be cleaned is dipped into the mixture tank, allowed to remain the proper time, and then lifted into the bathtub and cold water showered on it from a hose. The result is that the part to be worked on is perfectly cleaned before it starts on the rounds of the shop. A lifting apparatus is over the cleaning tank and the bathtub to handle the heavy

Cadillac Service Station Appointed

PHILADELPHIA, Sept. 6-The Automobile Sales Corp., 142 North Broad Street, a Cadillac distributer in this territory, has appointed the States Motor Service as a Cadillac service station in Atlantic City. It is owned by W. Chandler Stewart and has a well equipped repair shop. From now on it will carry a complete stock of Cadillac parts. The Cadillac service will be in charge of George H. Dickerson.



Repairshop Shortcuts

From Motor World Mechanics

No. 2278—PARTS STOCK RACK

A handy rack for storing parts is made from two wooden uprights with 1¼-in. pipe spacers, the uprights being provided with cross foot pieces to prevent them from falling over. Holes are bored in the sides of the uprights at intervals, these holes being at an angle and pieces of ½-in. pipe are inserted in the holes. Long parts such as shafts, rods, exhaust pipes, etc., are then laid on these pipes, extending from one upright to the other.—Bert Sprague, Motor Sales Co., Huntington, W. Va.

No. 2279—REMOVING CHEVROLET FELT VALVE WASHER

The felt anti-rattler washer on the Chevrolet is removed or replaced by using a special tool to push the rocker arm down. This special tool is simply an old valve lifter to which is added an open link made from a 16-penny nail. This link is hooked under the rocker arm on the push-rod side and the valve lifter pushes down on the other side, using the link to pull up on.—Simon P. Rockey, Pekin, Ind.

No. 2280—A CARBON SCRAPER

A scraper for removing carbon from the inside of cylinder heads is made by grinding down the blade of a putty knife. Two different curves are made, one having a greater radius than the other so that between the two almost every curve and angle in the cylinder head can be reached.—C. M. Jenkins, Dodge City, Kan.

No. 2281—GARAGE DOOR OPENER

To avoid the necessity of going out to the front of the garage every time a car goes in or out, a pair of bicycle pumps may be hooked up as shown in the illustration. The air is admitted to either the top or bottom of the pump by means of a three-way valve which is placed at any convenient spot. Throwing the air into the top of the pumps tends to push the plunger down and thus open the door, while admitting the air to the bottoms of the pumps pushes the plungers up, thus shutting the door. The air is taken from the regular garage supply and is carried through tubing or small pipe .-Gene Warner, Willys-Overland, Inc., Hartford, Conn.

No. 2282—HANDY CASE FOR SMALL PARTS

A case for holding small parts of magnetos, generators, etc., is made by saw-

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, showing as clearly as possible the construction of the device and how it is applied to the job you are talking about. If necessary send two or three sketches. WE MUST KNOW HOW THE DEVICE WORKS. When a shortcut is applied to a car it is sometimes easy to tear a page out of an instruction book indicating on one of the pictures just where and how the device is applied.

3—If convenient, send one or two Kodak pictures. This is not really necessary, but it will enable us to quickly grasp your idea and may insure the acceptance of a shortcut which may otherwise be confusing.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

ing off the bottom parts of several old battery jars so that the sediment wells form individual compartments. Several of the cut-off jars are put in a shallow hox and held there with sealing compound. A hinged lid to the box completes the case.—Kelsie Click, Fostoria, Ohio.

No. 2283—RUBBER COVERED VUL-CANIZING BLOCK

A rubber covered block for vulcanizing tubes on the plate is very handy and one can be made so that the tack heads do not stick through the rubber covering. One ply of fabric is first tacked to the block which can be cut the desired size. To this layer of fabric is vulcanized a layer of tread stock, using the necessary cement and curing for the required length of time.—William J. Oldfield, W. E. Clovis Garage, St. Marys, W. Va.

No. 2284—GAGE GLASS CUTTER

Gage glasses can be easily and neatly cut off by looping a section of light resistance wire around the glass at the place where it is desired to cut it off. The ends of the wire are connected to two binding posts, which are in turn connected to the line circuit. When the current is turned on, the wire heats up, heating the glass at that point. The glass is then withdrawn from the loop and plunged into cold water. It will break off cleanly and evenly.—Charles H. Willey, Concord, N. H.

No. 2285—REMOVER FOR BUICK VALVE SPRINGS

A remover for Buick valve springs is made by bending a piece of 3/16 x 1 in. flat iron into a U-shape to fit the jaw of the vise and attaching another smaller U-shaped piece to the front of it. The large U is held to the vise jaw with set screws and by putting the valve cage in the vise, catching the washer on the ends of the U and closing the vise up, the pin can be pulled out—H. V. D. Sweet, Cherry Valley Garage, Cherry Valley, N. Y.

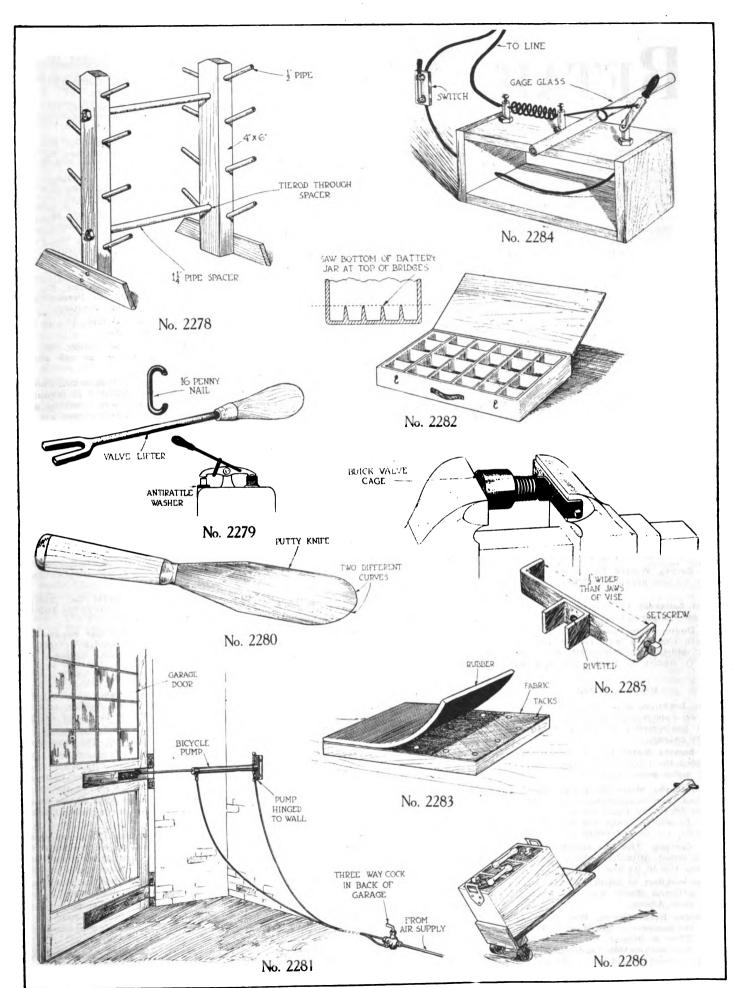
No. 2286—STORAGE BATTERY CARI

A battery cart is a handy thing in a shop where batteries have to be moved around to any extent and one can be made out of a few pieces of board and a couple of castors which are attached to the lower end. The handle is made by boring a hole in the pole and inserting a piece of pipe.—Clemens Roeske, Chicago.

FREMONT MOTORS CORP. TO MAKE CARS AND TRUCK

FREMONT, OHIO, Sept. 5—The Fremont Motors Corp. has been organized with a capital stock of \$2,000,000 for the manufacture of passenger cars and trucks. The company will specialize in the manufacture of a four-passenger car to sell at \$1,285. This automobile has been perfected.

Manufacture will be carried on at the plant of the Burford Motor Truck Co. which has been purchased by the new corporation. The manufacture of the present Burford truck will be continued.



RETAIL NEWS

NORTHWEST

Peter Niessen, Audubon, Ia., has disposed of his interest in the vulcanizing shop to John Welch.

Omar Kirk, Griswold, Ia., has bought out his partner, J. M. Gunston.

Lang & Schieffen, Hawarden, Ia., have bought the Auto Service station.

Dave Larson, Shenandoah, Ia., has sold his tire business.

Charles A. Long, Sac City, Ia., has sold his interest in the Long Bros. Motor Co. to Frank O. Long.

Hobert Leomon, Sibley, Ia., has taken the Dodge agency for Osceola County.

Guy Kunce, Villisca, Ia., has gone into partnership with his brother, F. G. Kunce, and will sell Hudson, Chalmers, Essex and Oldsmobile.

H. H. Duffy, Tingley, Ia., has sold his garage to B. H. Fitzgerald.

M. B. Pease, Ft. Madison, Ia., has been made manager of the branch here of the Auto Sales Co.

C. S. Abell, Keokuk, Ia., has taken the Exide battery agency for this city.

A. C. Childers, Ft. Madison, Ia., has closed his garage and service station.

Leo. J. Zart, Ft. Madison, Ia., has opened a service station and garage at 114 Chestnut Street.

Harter Buick Co., Keokuk, Ia., is now in its new salesroom and service station at 16 to 26 North Ninth Street. It has 11,000 sq. ft. in its new building.

The Carney Willard Co., Keokuk, Ia., is now in its new quarters at Third and Blondeau.

W. H. Sallander, Ft. Madison, Ia., is building a new garage there.

The Dudley Motor Co. of Hastings, Neb., has been chartered with \$10,000 capital by Wm. C. Miller, Julia Miller, Millard E. Dudley, J. C. Dudley, R. Dudley and Inez Dudley.

MIDDLE WEST

Louis Drektrah, Black River Falls. Wis., has been appointed Nash dealer and has opened headquarters in the McManners & Landers garage.

The Service Motor Co., Plymouth, Wis., has added the Case tractor and the Grand Detour motor plows to its line.

The Kenosha Motor Sales Co., Kenosha. Wis., has been incorporated with a capital stock of \$25,000 by Peter Rhode, Rene Ruster and Russell H. Jones, and will engage in the dealer, garage and repair business.

The Cookson Tire & Supply Co., 428 Twelfth Street, Milwaukee, Wis., has added the Owen tire to its line.

Harlie Wohlfert, of Adams, Wis., has taken over the Grand Marsh Auto Co., at Grand Marsh, near Adams.

Schroeder Bros., Barton, Wis., have purchased the business of the West Bend Wisconsin Tire & Repair Co. from George Mooers and Arthur Gehl, and will continue it in the present quarters.

The Service Motor Car Co., Kewaskum.

Wis., has been formed by John Tessar, formerly with the William Schaub garage. The company will act as Chevrolet, Dodge and Overland dealer.

The Portage Vulcanizing Works, Portage, Wis., established recently by Arthur and Charles Williams, is making a large installation of steam vulcanizing equipment.

The Long Motors Co., Kenosha, Wis.. Chandler and Cleveland dealer, has moved into its new garage and salesroom building at 464 Park Street, which provides about 12 000 sq. ft. of floor space.

Richard De Wright, Allegan, Mich., has moved into his new garage on Water Street.

A. L. Harrison, Clare, Mich., owner of the Clare Garage, has purchased a piece of property on West Fifth Street and will put up a new garage building.

E. C. Wright, Sturgis, Mich., Ford agent for St. Joseph County, will open branches in Three Rivers and Mendon, which will become distributing points. The action follows the new policy of the Ford Motor Co. to appoint general county agents, who will take care of the sales and distribution of the Ford products in the entire county. They will appoint their own sub-agents and open branches.

E. H. Oagood, St. Johns, Mich., local Overland dealer, has purchased the Miller garage. E. S. Jolly, the local Buick dealer, who has occupied the Miller garage, has purchased the Gem Theater building on East Higham Street, and will remodel the building for a garage.

The Federal Tire & Rubber Co., Grand Rapids, which has sole distribution rights for this city and Western Michigan, has opened an office and salesroom at 20 Fulton Street, West, with Henry Stadt as manager.

John Voorhees, Addison. Mich., has secured the agency for the Chevrolet and may also handle the Oldsmobile. He has leased a showroom in Widdefield's store block.

The Union Motor Co., Bay City, Mich., will open its new service station on Fifth and Saginaw avenues in a few days.

E. S. Evans & Co., Detroit, have been incorporated with a capital stock of \$1,200, to deal in automobile accessories and various machinery supplies. The incorporators are: Edward S. Evans, Charles W. Morris and Edward H. Rogles.

Dulyea & Vanderble, Holland, Mich.. will erect a \$40,000 garage at River and Ninth Street. The garage will be 83 by 133 ft. and two stories high.

W. E. Green & Co., Harrison, Mich., are remodeling their garage.

Hoff Bros., Howell. Mich., have sold their garage to William H. Wilcox, but they will continue the Buick agency, merely giving up the garage part of their former business.

B. F. Mapmton, Harrison, Mich., distributer for the Ford, is having a new garage and salesroom erected on Main Street.

The Strong Auto Supply Co., Massillon, O., has been incorporated with a capital stock of \$10 000 by J. A. Carnes.

Macomb Buick Co., Macomb, Ill., has opened for business. Harter & Thompson are managers of the new company.

C. & S. Garage, Galesburg, Ill., is now in its new quarters at 487 Mulberry Street.

Thomas Cherry, Quincy, Ill., has taken the agency for the Stanley Steamer for that territory.

The Irwin Marmon Co., Quincy, Ill., has closed its service station here.

Gross Service Station, Quincy, Ill., has opened for business at Twelfth and Vermont streets.

Spring Street Motor Co., Quincy, Ill., has taken the agency for Case tractors for that territory.

J. L. Klemme, Rockford, Ill., Gates Half Sole Dealer, has sold his business and will move West on account of ill health.

Pinkleman Clarke Co., Quincy, Ill., tire dealer, has added a repair department.

L. W. Ruskamp, Quincy, Ill., has taken the Oldsmobile agency for this territory, and has opened a service station on South Ninth Street.

Mid-West Tire Sales Co., Quincy, Ill., has taken the distribution of the Pennsylvania Vacuum Cup tires for that territory.

Gem City Motor Co., Quincy, Ill., is now located at 420 Jersey Street.

U. S. L. Battery Service, Quincy, Ill., has opened its service station at 515 Jersey Street.

The McMicken Auto & Wagon Co., Cincinnati, Ohio, has been chartered to manufacture commercial vehicle bodies and do general repairing. The incorporators are H. Ostholhoff, Sr., H. Ostholhoff, Jr., William A. Pohl, Celia J. Hesselbreck and John O. Hesselbreck.

John S. Record, Columbus, Ohio, who has just returned from foreign service as captain, has purchased the Central Garage, 138 East Chapel Street. Associated with him are two former members of his company, Maxwell Stelzer and Charles E. Hemming.

The H. B. Young Motor Truck Co., Cleveland, has been incorporated with a capital of \$25,000, to sell and operate motor trucks. The incorporators are E. M. Staiger, H. U. McFadden, William Bradfield, Roy C. Taylor and A. E. Boyle.

The Barger-Mitchell Motor Co., Toledo, has taken over the distribution of the Auburn in the Toledo district.

Euclid-55th Street Motor Car Repair Co., Cleveland, O., has been opened at 1965 E. 55th Street with R. D. Heacox, manager.

SOUTHWEST

The Texas Garage, Texahoma, Okla.. has been leased by Homer R. Fleming to Gilbert Gordon, who is now in charge of the business.

The Ford Garage, Oxford, Kan., has been sold to Harry Nessly.

N. D. Atkins, Oklahoma City, Okla., has taken charge of the Buick agency in Duncan, Okla., and will open a service station.

The Black & Van-Leer Auto Repair Shop, Lyons, Kan., has been purchased by Harry Guldner.

John Cornish, Louisiana, Mo., has purchased the garage building at the corner of Third and South Carolina streets from Mrs. Jessie Orthwein.

Bradley & Head Shop, Buffalo, Kan., has been opened as a vulcanizing shop.

The Moxiey-Graham Motor Co., Little Rock, Ark., has started the erection of a building at 1215 Main Street, to be one-story 50 x 140 ft. and cost \$20,000.

The Rubber Tire Supply Co., Springfield, Mo., has completed its two-story building.

The Vesper Auto Co., Kansas City. Mo.,



opened new quarters in the Traders Building, pending the completion of its building at Nineteenth and McGee streets. W. S. Roberts, vice-president of the company, will open its distributing territory immediately.

Hall Motor Co., Cushing, Okla., has been sold to J. Bryan.

The Anstaett Bros.' Garage, Lyndon, Kan., has been sold to A. L. Herren, who has taken over active management.

S. M. Earp, Kinsley, Kan., has taken over the interests of Harold Kerr, his former partner in the Kinsley Garage & Tire Service

The Southwestern Battery Service, Hutchison. Kan., opened under the active management of M. J. Shanaske. Mr. Shanaske, Earl Stafford and M. J. Knightly compose the company.

R. J. Best, Alva, Okla., has succeeded R. N. Roark in the management of the Owl Garage.

The National Garage, Leavenworth, Kan., has been opened by John Baade and Joe Colombo.

The Nordyke & Marmon Co. branch at Kansas City, Mo., has been sold to the Ellwood Motors, a newly organized company in Kansas City. The business will be continued under the new name at the same location, 1608-10 McGeo Street.

Eimer McMillan, New Franklin, Mo., manager of the Smith Motor Co. of Moberly, Mo., has purchased a building for a garage.

Price Harboid, Goodland, Kan., has purchased a share in the Golden Belt Garage from Herman Baumgarten.

PACIFIC COAST

The Service Garage, Portland, Ore., has been opened by Captain C. B. Brown, Lieut. R. F. Brown and Lieut. William R. Singletary, all ex-service men.

The Hink-Strugnell Motor Co., San Jose, Cal., has been organized by O. K. Hink and H. W. Strugnell and has purchased the business of the Hays Motor Co., at 391-393 South First Street. The concern will distribute the Scripps-Booth and Paige lines in the counties of Santa Clara, Santa Cruz, San Benito and Monterey. Strugnell was formerly sales manager of the Carter Motor Car Co. of San Francisco. The Panhard truck is also represented by the company.

R. N. Fair and Frank McQuoid, San Jose, Cal., have opened a tire and vulcanizing shop at 1st and San Salvador streets under the firm name of the Fair-McQuoid Co. and will handle U. S. and Mohawk tires at wholesale an retail.

The Carter Tire Co., San Jose, Cal., has o, "I a branch in Modesto with F. J. Andrews on manager, at 817 11th Street.

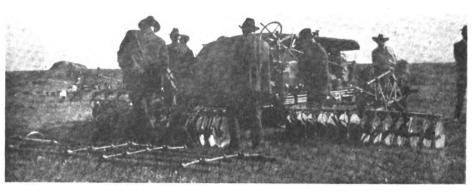
Vath & Gliman, San Jose, Cal., have opened a vulcanizing shop and Miller tire salesrooms at 109 East Santa Clara Street.

W. E. Hite, Oakland, Cal., has purchased the former Mead Garage, at 537 18th Street, and has installed a repair shop and an accessory department.

E. E. Coffman, Oakland, Cal., formerly connected with the Savage tire factory branch at San Francisco, will distribute those tires in Alameda County and has established headquarters at 278 12th Street.

The Eaton-Lehre Co., San Francisco, has been organized with the following officers: R. L. Eaton, president; George Lehre, vice-president, and A. J. Lehre, secretary and treasurer. The company has purchased the Downtown Garage at Fifth and Folsom streets and installed a repair shop and a solid Goodyear tire service station.

R. H. Taylor, Oakland, Cal., has established



Fitted for the Big Northwest Farms

A Gray tractor, with side extensions, pulling three disk harrows and a four section peg tooth harrow, exhibited at the recent national tractor demonstration at Aberdeen

the Elmhurst Vulcanizing Works at 9219 East Fourteenth Street.

L. H. McBride, Oakland, Cal., has opened the East Side Repair Shop at 8816 East Fourteenth Street.

R. W. Lane & Son, Oakland, Cal., formerly operating the Lone Star Garage at Atascadero, have purchased the Original Fruitvale Garage at 3422 East Fourteenth Street.

The Fruitvale Vulcanizing Works, Oakland, Cal. have been established at 3283 East Fourteenth Street with a stock of U. S. tires.

The Service Garage, Oakland, Cal., has been established by Jos. Vasconcelles at 3271 East Fourteenth Street.

The Economy Tire Co., San Jose, Cal., has opened a branch at 315 Main Street. Watsonville, Cal., with H. Stover as manager.

The Spencer Auto Sales Co., San Jose, Cal., of 97 N. First Street, has secured the agency for the Pilot car for the counties of Santa Clara, Santa Cruz, San Benito and Monterey.

John W. Huggard and R. J. Huggard, San Jose, Cal.. formerly connected with the Ford Garage at Palo Alto, have established the Burbank Garage at 2317 West San Carlos Street.

Schmeider & Doty, San Francisco, Cal., have purchased the garage at 522 Frederick Street and adopted the name of the Frederick Garage instead of Lundy Garage.

SOUTH

Fite & French, Nashville, Tenn., recently added the line of Armleder trucks to its passenger car business.

H. B. Blanks Lumber Co., Vicksburg, Miss., has taken on the agency for Armleder motor trucks for this vicinity.

EAST

The Central Realty Co., Wilmington, Del., has begun the construction of a large public garage at Eleventh and Orange streets.

Alexander & Scott, Harrisburg, Pa., headed by Joseph Alexander, who has been with the Standard Auto Supply Co. for several years, will be opened at 315 Chestnut Street.

The Acme Motor Sales Co., Baltimore, Md., with E. Comer Smith for president, handles the Acme line of trucks in the entire States of Maryland and Delaware and the District of Columbia.

NEW GARAGES

M. Massari (55 x 86).... New Haven, Conn. S. Greenstein......Brooklyn, N. Y.
L. Gold (100 x 100).....Brooklyn, N. Y. F. Alberti (59 x 83).....New York City J. A. Heffernan (56 x 99)....Syracuse, N. Y. Hess & Lewis (70 x 100)....Springfield, O. Republic Dayton Motor Sales Co. (65 x I. H. Waugh (addition)....Herrington, Kan. Filling Station (addition),
Oklahoma City, Okla. The Eagle Garage.....Platteville, Wis. James Jackman......Portage, Wis. J. P. O'Connell (44 x 92)....Marshfield, Wis. John Conrad (30 x 120)......Colby, Wis. Allen & Zander (40 x 100).....Merrill, Wis. William Schrug Edgerton, Wis. P. M. Ellingson..... Edgerton, Wis. Spencer Johnson (78 x 182).. Reedsburg, Wis. Shaver Motor Car Co. (50 x 200), Milwaukee, Wis. Debareiner Hardware Co. (60 x 120), Hortonville, Wis. Hoffman Bros. (40 x 80)......Marion, Wis. M. Wiora & Son........Wild Rose Wis

M. Wiora & Son
Kratchwill Bros. (40 x 110)Muscoda, Wis.
Anderson & Frenck (150 x 160),
Escanaba, Mich.
Hannot-Westmann Co Menominee, Mich.
Sullivan Tire & Motor CoDavenport, Ia.
Cadillac GarageCedar Falls, Ia.
T. R. BraderStorm Lake, Ia.
Shaw Motor CoTraer, Ia.
Harry B. LowSac City, Ia.
Hanson and Tyler (addition)Ft. Dodge, Ia.
Cliff Wood
Davis Auto CoOttumwa, Ia.
Held & TrabantSt. Cloud, Minn.
Edw. LatterellFoley, Minn.
Henry HellecksonDennison, Minn.
Clifford PerryLittle Falls, Minn.
Nels Norell (58 x 80)Kandiyohi, Minn.
P. W. PerkinsPine City, Minn.
Joseph HaldAskov, Minn.
Bruehn Bros
Otto Julier
Otto TomshineBarnesville, Minn.
Papenfus Bros Sauk Rapids, Minn.
S. SvendsenGeneva, Minn.
Quick Service Auto Co. Fergus Falls, Minn.
D. C. HollemanBrainerd, Minn.
Burwell & Kummer
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Automotive Equipment

DIM-AUTO-LITE SWITCH

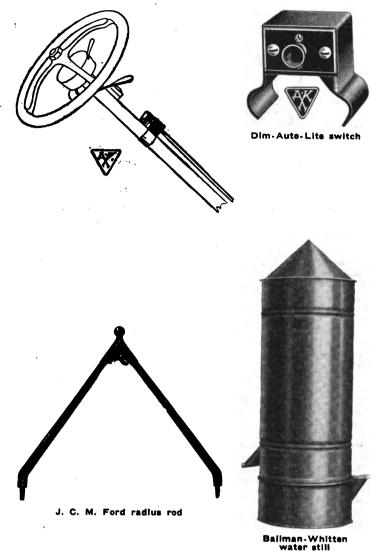
This switch snaps on the steering post of a Ford and is held there by friction. It is designed to dim the headlights when the car is being driven through cities and towns. The switch is of the push-button type with "in" and "out" position for dim and bright headlights. It is finished in black enamel with nickel plated push button. Price, \$2.—Angsten-Kox Co., Chicago.

J.C.M. FORD RADIUS ROD

The studs or axle ends in this radius rod are attached to the tube arms by a special welding process. The head end is securely clamped in a patented socket. It is held on by two bolts, which engage with clamping notches, one on each tube. If, owing to an unusually violent collision, one of these radius rods becomes buckled, the injured part may be quickly replaced without entailing the expense of a complete new rod. Auxiliary braces are supplied when desired. They are attached to the head by means of the same bolts which clamp the rod arms, and to the axle ends by clamping under the present front spring perch nut. The radius rod complete itself is \$3 each, and the auxiliary braces are \$1 per pair.-Jersey City Machine Co., Jersey City, N. J.

PRINCE'S BRACEFORDS

These are auxiliary braces which extend from the forward ends of the runningboards to the sill of the door. They are designed to stop the shake and prevent the runningboards from sagging. Strap slots are provided in the feet and body so that articles may be fastened to the runningboards. In addi-



Prince's

tion to the forward set, a set may also be put at the rear ends. Price \$3.50 per set of four. The set is complete with bolts.—Prince Mfg. Co., 120 South Main Street, Sumter, S. C.

BALLMAN-WHITTEN AIR-COOLED WATER STILL

Type B still is designed to provide chemically pure water for storage battery use. It consists of two principal parts, the boiler and the condenser. Both are made of sheet copper coated with pure tin. The boiler has a capacity of 2 gals, and may be filled while the still is in operation. Provision is made for quickly cleaning out all scale, mud and impurities which accumulate in the boiler. The condenser admits a sufficient amount of sterilized air to mingle with the steam to thoroughly aerate the condensed water. The still will produce 1½ gal. of distilled water in 12 hr.— Ballman-Whitten Mfg. Co., 4060 Forest Park Boulevard, St. Louis, Mo.

THE HILLMETER

This is a device for showing the percentage of the grade that the car is climbing or descending. It consists of a curved glass level tube with a bubble, the degrees being marked in easily seen figures. It is attached with a couple of screws to any convenient part of the car, so that it may be either in sight of the driver or, in the case of a limousine, may be placed in the rear so that the owner may observe it. Price \$1.—The Meteor Sales Corp., 30 East Fifty-seventh Street, New York City.



GRANT LIGHT 6

Wholly Re-Designed

W HILE no radical changes have been made in principle, the Grant light six for 1920 has been entirely redes.gned. The wheelbase has been made longer, there is a wider power range in the engine, and the body lines show considerable advance from the artistic standpoint. In addition to this, the comfort of the passenger has been taken into consideration to a much greater extent than heretofore. Without increasing the weight of the car to any appreciable extent, the added engine power and longer wheelbase allow a speed control and ease of riding, which puts the new model in an entirely different class from former Grant models.

From the radiator back, many changes can be noted, and the long, low, straight lines of the body blend into the bonnet at the front.

The engine has six cylinders, as in previous models, % in. bore by 4½ in. stroke, the crankshaft being balanced and of extra large dimensions. The valves are of the overhead type. The carbureter is a Stromberg and this is fed from the tank by a Stewart vacuum system. A two-unit starting and lighting system is used. Among the accessories on the engine are the Kellogg power tire pump and motometer.

The rear axle is a Columbia floating type with 12 in. equalized brakes. The housing is one piece, and the brake connections are permanently lubricated. A Hotchkiss drive is utilized.

The front axle is drop forged of l-beam construction, with extra strong securing connections. The steering gear is irreversible, continuous tube. The steering column is surmounted by a wheel 18 in. in diameter, with notched mahogany rims. The wheel carries the spark and throttle control, and the instrument board on the dash is finished in mahogany to match the wheel.

The springs, both front and rear are semi-elliptic, the front measuring 38×2 in., and the rear 56×2 in. underslung. The bushings are permanently lubricated in all springs. The gearset provides three forward speeds and reverse, and Spicer universal joints are inserted between the gearset and the rear axle. The speedometer drives from the gearset. The clutch is a Borg & Beck.

One of the features of the radiator is the removable core. The radiator itself has a reinforced double shelf, and is mounted on trunnions. The new model is to be had with four different bodies, these being a touring car at \$1,495, a roadster at \$1,495, a four-door sedan and a four-passenger coupe. The prices on the enclosed models have not yet been fixed.

Champion Brass Adds Accessories

GOLDWATER, MICH., Sept. 6—The Champion Brass Works is adding a line of automobile accessories to its normal manufacturing line.

Grant Light Six Specifica-

Prices—Touring, \$1,495; Roadster, \$1,495.

Engine—6 cylinder 3½ x 4½ overhead valves.

Wheelbase—116 in.
Gearset—Three speed.
Propeller shaft—Tubular.
Universal Joint—Spicer.
Hub—Borg & Beck 10 in.
Spring—Semi-elliptic.
Carbureter—Stromberg.
Rear Axle—Columbia.

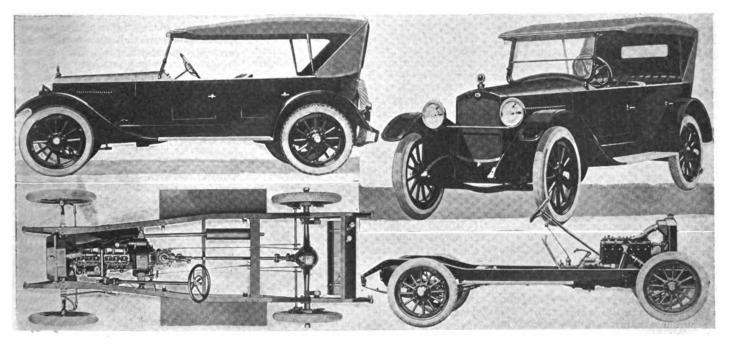
Here's One Way of Getting 'Em

The Harrisburg (Pa.) Motor Car Dealers' Association boasts of a membership comprising 98 per cent of the dealers in the city, but some difficulty was experienced in getting the men to attend the meetings. Many important things were brought up at the meetings and it was found that not enough members were present to take action.

This expedient was found to work like a charm: The roll was called at one minute after eight and again at adjournment.

All members who answered both roll calls received a dollar. Most of them did not want the dollar, so all the dollars were pooled, numbers put in a hat and the winner got half of the pool, the balance going in second and third prizes.

The possibility of getting \$40 or \$50 for attending the meeting has met with instant response.



Body and chassis views of the new Grant Light Six



JOHN W. WATT
Vice-President
Service Manager, Reo Motor Co. of New



RALPH C. ROGNON

President

Service Superintendent, Vim Motor Truck

Co. of New York



ERNEST V. DERKS
Treasurer
Service Manager, Buick Motor Co. of New

OFFICERS OF THE AUTOMOTIVE SERVICE ASSOCIATION OF NEW YORK

NEW YORKERS ORGANIZE FOR BETTER' SERVICE

Metropolitan Association Paves Way for National Body — Manufacturers and Dealers Support Movement and N.A.C.C. Promises Help

MORE efficient service, a better understanding between service and the other branches of the automotive industry and a real attempt at co-operation are the aims of the Automotive Service Association of New York, which has just had its organization meeting. The members, who for two months have been perfecting their plans, have threshed the service question out from all possible angles and the prominence of the originators and the zest with which they have tackled the problem assure success for this belated but much needed effort at co-operation in the branch of the industry that needs it most.

Already the engineers and designers of cars and trucks have derived great benefit from their association, and later the dealers organized in one great body to protect and further their interests. What could be better for the industry than to have the service men, the men who are in most intimate contact with the purchasers, in one great association, all working together, rather than working at cross purposes?

For the present the New York asso-

ciation will devote itself to covering the local territory thoroughly and getting the metropolitan district well organized. In the meantime, local associations are being formed in adjacent trade centers. and these will work in harmony with the New York body. The ultimate intention is to foster the formation of such associations all over the country, have a national governing body and arrange for a national convention.

How Movement Started

Some service associations have been formed in the past and a convention will be held in Detroit in the fall of this year. It will be the aim of the New York association to co-operate with these organizations and help them along as much as possible.

About two months ago about thirty service managers and others interested in service met at the Automobile Club of America and appointed temporary officers and a committee to draft a constitution and by-laws, to get information about other service associations and to map out a plan which would put service

on a higher plane and help to solve some of the problems that the service manager is confronted with. This committee has worked long and hard and its report at the organization meeting Sept. 3 showed not only a real need for the association, but suggested many things that could be started at once to improve conditions.

The first night's attendance showed that service men from such companies as Haynes, Vim, Day-Elder, Bethlehem, Willys-Overland, Pierce-Arrow, Reo, Franklin, Ford, Marmon, Buick, Westcott, Chevrolet, Garford, Roamer, Studebaker, Atterbury, Federal, Republic, White, Dodge and other firms handling both cars and trucks were generally interested, and there were representatives from prominent trade papers, dealer associations and the National Automobile Chamber of Commerce.

Alfred Reeves, manager of the national chamber, delivered the opening address. He said that the organization was started none too soon. He dwelt on the labor troubles which were being experienced by the service branch of the

industry. He was strongly of the opinion that service could be vastly improved and that it was only by organization among the service men that these improvements could be effected. The factory man does not get into the baffling details that confront the service man, he added. The factory manager is most concerned with getting his car or truck through the factory and then getting it sold, and from the beginning of cars to the present time service has been considered as a necessary evil, and the easiest way to shove the responsibility on the service man was the best way out of it.

Reeves spoke of the troubles of the car owner in getting the right kind of service and stated that in his opinion there was more dissatisfaction with the quality of the work than the charge that was made. He voiced his disapproval of free service and in concluding his speech said that the National Automobile Chamber of Commerce was strongly behind the service association and would do everything in its power to help it along.

Brown Tells of Troubles

Reeves was followed by Charles M. Brown, president of the New York Automobile Dealers' Association, who as head of an establishment conducting both sales and service, told of some of his troubles. He was of the opinion that the association was a big step in the right direction and that there was a big field for the good work that the association could do. He promised the backing of the dealers' association.

That was a real start—the approval and backing of two such organizations as this. The report of the board of directors was read and adopted and the constitution and by-laws adopted. After that applications for membership, accompanied by checks, were received and the secretary took in \$150.

It then developed that everybody wanted to talk about his troubles. The floor was occupied until the time the last commuters' trains left, and the president had to break parliamentary rules and choke the speeches off because the janitor had to clean the rooms out before morning.

Nearly everybody had something to say about labor troubles and the possibilities of remedying them. In the first place, everybody knows that all kinds of labor is scarce, but the service station is especially short on good help, with the result that many of the establishments are using a grade of labor much inferior to what they would like to have. They are attempting to make up the difference in careful supervision. This results in an enormous strain on the managerial staff and the rejections cost a lot of money. This brought out the fact that there is no standard system of training automobile mechanics. Most of those who are good mechanics to-day learned their trade in the hard school of experience. The industry is still so young that middle-aged men can well remember the first cars and they have grown right up with them.

Automobile schools of all sorts and

What a Service Association Can Do

- I—Establish friendly relations between service managers.
- 2—Establish an employment bureau.
- 3—Promote educational propaganda.
- 4—Improve service conditions.
- 5—Educate owners in the matter of lubrication and adjustment.
- 6—Co-operate with factories by suggesting designs which will facilitate overhauling.
- 7—Co-operate with sales organizations to secure a better understanding as to free service.
- 8-Educate mechanics.
- 9—Investigate and classify automobile schools.

kinds have been started, but some are good, some bad and some indifferent. A diploma from an automobile school does not carry much weight because, most often, the service manager does not know anything about the school in question. Therefore the applicant for a position is firing in the air when he says he is a graduate of such a school, and until more is known about these institutions and what they accomplish, not very much reliance can be placed on their claims.

Some speakers advocated starting an apprentice system by which young chaps could go into the service stations, be put through a special line of work to educate them and give them a sort of certificate at the end of a definite length of time. This seems like a good work that the association could start because it could only be done by an organization and not by an individual establishment.

Shop Equipment

The question of shop equipment and its relation to service cost and excellence is an important one. Too many establishments are to-day run on a cobbler shop basis, each job being a special individual operation. Working along these lines it is impossible to turn out any considerable quantity of work, and the cost is high. It has been suggested that overhaul operations and rebuilding be conducted along much the same lines as factory production. While it is possible



that ideal conditions could not be reached, at least a great improvement could be effected over present methods.

Free service was given dig after dig, and it was admitted that much could be done in educating the owner to the importance of proper lubrication and adjustment, which would materially cut down this evil.

Co-operation with the sales department in the matter of promises made or implied will have much to do with lessening misunderstandings which exist in the minds of owners as to what they are entitled to in the matter of free service.

Independent service stations which are not confined to the repair of any particular make of car are not subject to this trouble, but they have other troubles of their own. They have a great many different makes of cars to handle and it is necessary either to have a higher grade staff of mechanics or to employ several specialists on the different makes of cars and ignition, starting and lighting systems.

Much To Learn About Repairs

The automotive industry has learned much in the matter of how to sell cars and trucks and how to charge for various things that go into sales and manufacturing, but it has much to learn as to how to make repairs. The association plans an extensive series of educational meetings at which technical experts representing companies manufacturing engines, carbureters, magnetos, ignition systems, axles, etc., will lecture on the repair and overhaul of the parts. Lubrication and carburetion specialists have also signified their willingness to help the movement along.

It is planned to make the meetings social as well as educational, so that service managers who are necessarily shut off from the rest of the automobile world during business hours will be able to get together and talk over their experiences and take advantage of the information brought out in this way.

With the coming of the war, many service stations made revolutionary changes in their systems of doing work and charging for it, and some of the men who have found these changes of benefit have been induced to prepare papers on the subject. It is expected that the papers and discussions will be a great help in the right direction.

The officers of the association are: President, Ralph C. Rognon (Vim Motor Truck Co.); vice-president, John W. Watt, (Reo Motor Car Co. of New York); secretary, J. Howard Pile (Motor World); treasurer, Ernest V. Derks (Buick Motor Co.). The board of directors consists of E. Hunn, Jr. (Packard), chairman; J. H. Lange (Three Point Truck Co.), J. M. Grant (White), F. J. Lowe (Bronx County Auto Co.), H. M. Holt (Willys-Overland), and Al Rawson (Reo). George F. Kaiser, legal editor of Motor World, is counsel for the association. The headquarters are at the National Automobile Chamber of Commerce, New York:

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News Letters From Trade Centers

NEW ORLEANS

Dealer Changes

NEW ORLEANS, Sept. 6 - While there have been several mergers of automobile firms recently, the first division of a firm was recorded last week when the Fairchild Motor Car Co., local distributer of the Dodge and Peerless, was separated into two concerns, one retaining the name of the parent firm and the other becoming the United Motor Car Co. The Fairchild company will handle the Dodge Brothers' car exclusively, and the United will take over the Peerless line and take on the Liberty car.

C. F. Bardie remains president of the Fairchild company, while E. H. Fairchild withdraws as secretary of the Fairchild company to become president of the United Motors company. Edward Finley remains vice-president of the Fairchild company, and R. L. Aubert, of Slidell, La., has been elected secretary to replace Fairchild. Joseph Rhul withdraws from the Fairchild company to become vice-president of the United, and Park Woodward, for many years con-nected with the Fairchild company, has been named secretary of the new corporation. A. L. Saxon remains as sales manager of the Fairchild organization, and R. L. McCarthy goes to the United in the same capacity.

The United Motor Car Co. is erecting a building covering a lot 64 x 172 ft., two stories high. The Fairchild company will remain in its present quarters. Large space in the United Building will be devoted to the service department, and the garage will have entrance and exit on opposite sides.

The Raleigh Motor Co., which handles the products of the Southern Motor Manufacturing Association of Houston, Texas, is opening branch offices in Havana for distribution in Cuba, and is having plans made for a new building here. Oliver Montagnet is president of this company; Frank Einstein, vice-president; Adolph Bruguiere, secretary, and

C. Greco, treasurer.
F. R. Wetmore, who has been connected with the Locomobile Co. of America in territory and branch sales work for nine years, has opened offices at 518 Baronne Street, as distributer for Locomobiles and Riker trucks.

The Hanemann Motor Co., organization of which has just been completed here, is building an exclusively electric garage at 729 Poydras Street. It will have a capacity of fifty electric cars a day. P. B. Hanemann, recently connected with the Commercial Electric Co. and

the White Co., will be in charge. The company will have the exclusive agency for the products of the Ward Motor Vehicle Co. of Mt. Vernon, N. Y., which manufactures Ward electric trucks. Industrial tractors also will be handled.

The Frank Weinberger Automobile Parts Co., organized to furnish parts service to owners of the Cole, Saxon, Reo, Winton, Allen and Mitchell cars, has been organized by members of the Allen Sales Co., the King Motor Car Co., and the Sherrouse Motor Car Co., distributers of the above-named cars. The new company is established at 741 St. Charles Street.

Clarence E. Patton, truck-maker and salesman for the past 14 years for the Gary factory in Cincinnati, has joined the sales force of Duggan, Inc., the new firm which is handling Gary trucks and Kline and Briscoe passenger cars.

The King Motor Car Co. has added the new Allen to its line in addition to the Winton and Reo, for which this company already has the state agency.

Ben Cason, who has long been identified with the automobile livery and storage business here, has purchased sixteen lots and the buildings thereon, at the corner of Perdido and Dryades Streets, and will remodel the buildings for his garage and repair plant.

CHICAGO

Has Big "Drive-Away"

CHICAGO, Sept. 5-War time activities were being suggested in the motor industry here this week by the returning prevalence of "drive-aways" from the factories to the salesrooms of the various dealers here. Shortages of cars and railroad delays have forced the dealers back to this practice, the end of which had been expected with the end of the

The Hudson Motor Car Co. has completed this week what probably was the largest such "drive-away" ever made to Chicago in one caravan. J. R. Histed, the general manager, and A. S. Johnson, the sales manager, combined forces and conducted an excursion of about one hundred men to the Detroit factories and drove back to Chicago, the first two days of the week, with 101 cars, five of them being Hudsons while the remainder carried the Essex mark.

Chicago has a new automobile club under the name of the Illinois Automobile Club, with temporary headquarters at the Lexington Hotel. Although incorporated only two weeks ago, it has a membership already of about four hundred. It has not yet been determined whether the organization will retain permanent quarters at the Lexington Hotel or whether a home of its own will be taken. A legal bureau, as well as an insurance department, is contemplated.

ST. LOUIS

Dealers Change Quarters

ST. LOUIS, Sept. 6-The freight congestion caused by the shopmen's strike is being relieved and deliveries were completed last week of shipments of motor cars made from Detroit three weeks previously. The situation at the terminals in the St. Louis industrial district is about normal, with no further trouble expected.

The demand for closed cars is beginning to assert itself strongly again. Nearly every dealer is now featuring this type of car, which has been stead-

ily growing in favor here.

An exhibit of motor cars will be made at the St. Louis County Fair, at Upper Creve Coeur Lake, Sept. 18 to 21. Dealers of St. Louis and St. Louis county will take part.

Lee Branyen has been appointed manager of city sales of the Newell Motor Car Co., Paige and Stearns distributer.

B. R. Ford has rejoined the sales force of the Tate-Gillham Motor Car Co., Dodge distributer, after returning from service as chief of the motor transport of the Red Cross overseas.

Frank Bishop, president of the Briscoe Motor Sales Co., has converted the Curtiss-Canadian airplane he had on display into a taxi-plane. The service is in charge of Lieutenant Ahmberg, and a charge of \$1 a minute is made, with a minimum of \$10. Flights are being conducted from 7400 Delmar Avenue.

'Horse Sense" is the name of a creditable house organ gotten out by the Traffic Motor Truck Corp. The first number was issued last week. G. Elmo Holke, assistant advertising manager, is the editor. Articles by President Guy Wilson, Vice-President T. C. Brandle, Secretary and Treasurer Harry P. Mammen, and General Sales Manager Harry H. Hawke are featured in the number.

A. F. Hallback has returned to the Rottersman Automobile & Truck Co., Kissel distributer, as manager of the used car department after service in the

R. F. Fitzgerald has been appointed sales manager of the Neskov-Mumperow Motor Car Co., Anderson and Dort distributer. He formerly was with the Briscoe Motor Sales Co.



PHILADELPHIA

Firms Add to Personnel

PHILADELPHIA, Sept. 6 — After more than twenty years of merchandising under the title of the Automobile Sales Corp., distributer of Cadillac cars in this territory, the company has changed its name to the Neel-Cadillac Co. and is incorporated for \$600,000. Its board of directors includes: Percy L. Neel, chairman; E. Spencer Miller, J. R. McAllister, R. W. Cook, who also is general manager; W. J. Neel, J. B. Dickson, N. S. Jorgenson, B. S. Neel and E. C. Field.

The following changes in the personnel of the Packard Motor Car Co. of Philadelphia are effective Sept. 1: Edwin H. Lewis, formerly manager of freight transportation, has been appointed general distribution manager; John H. Rosen, who has returned from foreign service as first lieutenant in the Ordnance Corps, and who formerly was manager of the Packard Wilmington branch, has been appointed general manager for passenger transportation; T. H. Moore, who was assistant manager of passenger transportation, has been named manager of Twin-Six sales for Philadelphia, and Charles Woltz is appointed general manager of freight transportation.

The Stability Motors Co., distributer of Atterbury and Defiance trucks, West-cott motor cars and Fruehauf trailers, has added the following men to the managing personnel: G. W. Jones has charge of the Defiance wholesale department; J. E. Alderman has been placed in charge of retail Westcott sales; Earl R. Underwood assumes the management of the Westcott wholesale department, and S. B. Denzel has been appointed service manager.

Figures obtained at the coroner's office show that fatalities due to automobile accidents from the beginning of the year to the present date number 103, a falling off from the same period last year, when the total was 126. Persons who were fatally injured while crossing streets in Philadelphia, not at designated crossings, numbered 74 this year. Under the same conditions last year, 43 persons were killed, but there were fewer automobiles in Philadelphia then and more pedestrians, as there has been a heavy exodus of shipbuilding labor resident here since the armistice.

The Automobile Club of Philadelphia has completed the permanent marking of nearly a score of main traveled highways throughout Pennsylvania, New Jersey, Maryland and Delaware for more than fifty miles out of the city in all directions. The club name is stenciled on all the poles marked. The work was begun more than a year ago.

D. A. Evans, Harrisburg, Pa., eastern representative of the Bearcat Product Co., of Oklahoma City, manufacturer and distributer of automobile accessories, has

opened a warehouse at Drummond and Sixteenth streets. This house will be the eastern distributing point for Bearcat products, covering several states.

J. Joseph McHugh, Philadelphia, plans to build a \$12,000 addition to the garage at Fifty-ninth Street and Woodland Avenue.

Oil interests here expect an early advance in the price of Pennsylvania crude. The price now is \$4 & barrel, with premiums up to 50 cents a barrel being paid in certain sections.

Louis Kober, Philadelphia, plans to build a \$6,000 garage on the west side of Kensington Avenue, west of J Street.

WASHINGTON

Suffering Dearth of Cars

WASHINGTON, Sept. 5—During the past two years the automotive industry here has grown so fast that now there is a dearth of available showrooms and service stations. A number of dealers already have plans under way to build new quarters. The first to make such announcement was Stanley H. Horner, Buick dealer, who has purchased on Fourteenth Street a lot 75 x 125 ft. He is asking for bids for the construction of a three-story building to cover the entire lot.

The Taylor Tolley Sales Co., Ford dealer, is putting up a building at the corner of Fourteenth and T Streets which will be used as a Ford sales and service building.

The government has released the service statish of the Chevrolet Motor Co. on Sherman Avenue which during the war was used by the Signal Corps. The Chevrolet company is moving back into the building.

The sales and service station of the Harper Overland Co. on Connecticut Avenue, which, during the war, was used by the Commissary Department of the Quartermaster Corps, has been turned back to its owners. It will again be used as a sales and service department for the Willys-Knight and Overland passenger cars.

The Oldsmobile Sales Co. has moved its service department from the rear of its showroom on Connecticut Avenue to a new building at Twenty-second Street and Virginia Avenue Northwest. It has the entire second floor, the first being used as a truck salesroom and service department by the General Auto Truck Co., which handles the Master and Oldsmobile trucks.

Forst Bros., Inc., Giant distributers, have taken the representation in Virginia, Maryland, Pennsylvania, Delaware, West Virginia and North Carolina for the Diamond T motor trucks.

The cash basis plan for parts and service work, as adopted by the Washington Automotive Trade Association at its last meeting, has been in effect about three weeks and is working out even better than was hoped.

HARTFORD

Dealers Change Quarters

HARTFORD, CONN., Sept. 6-A number of changes and additions have taken place along Hartford motor car row in the past week. The Hartford Scripps-Booth Co. at 214 Pearl Street has moved to 314 on the same street, taking over part of the salesroom of the A. C. Hine Co. When the latter concern moves to the new sales and service building now in process of construction on Washington Street, the Hartford Scripps-Booth will take over all of the former Hine premises on Pearl Street. Lester B. Gage, formerly of the Hine sales force, has been installed as general manager of the Hartford Scripps-Booth Co.

The Acme Motor Sales Co. has moved from 334 Pearl Street to 256 Main Street and has taken over a garage and service station. The offices are located temporarily in the service station pending completion of the sales quarters in course of erection. The Monroe has been added to the line.

Robert J. Flynn, Inc., has taken over the old quarters of The Acme Motor Sales Co. on Pearl Street. The Westcott and Grant will be featured. Robert J. Flynn, formerly sales manager of the Hartford Scripps-Booth Co., heads the new concern. Graham Wells, formerly of the Hartford Scripps-Booth sales department, goes with him.

The Charter Oak Motor Car Co. has taken on the new Cleveland Six.

Among the new arrivals are the American Motor Sales Corp., which has opened a salesroom at 37 Allyn Street, and the Hermann Motor Sales Co., which has taken over the Highland Court garage at 99 Windsor Avenue and assumed representation of the Collier, Signal and Atlas trucks.

E. A. Holcomb, who conducts three tire stations and a battery department, has leased that part of the Fisk Rubber Co. building used as a service station, which he opened Sept. 1 as a combined tire and battery service station.

The Elmer Automobile Co. has now merged all departments at the new sales and service building, 348 Trumbull Street.

The Universal Auto Co. has added the Autometric carbureter to its line.

Andrew J. Cassky, 306 Church Street, Rayfield service and sales representative, has taken the agency for the F. O. B. Auto Lock.

The United Tire Repair Co. has opened a tire repairing establishment at 47 Allyn Street.

- A. S. Hitchcock, formerly of Springfield, Mass., has taken over the management of the Hartford G. M. C. truck headquarters.
- J. D. Robinson has joined the sales force of the A. C. Hine Co., Cole and Oakland distributer.



DES MOINES

Fair a Success

DES MOINES, IOWA, Sept. 6—Des Moines motor car and truck dealers are very well pleased with the results of the state fair early fall show. Not only were the dealers pleased with the show as an advertising and educational feature but there were many actual sales made during the show, and this was particularly true in the case of trucks.

The Lagerquist Auto Co. has taken the distribution of Moon cars for central

The Hart-Parr Co., of Charles City, has opened a branch in Des Moines, with F. O. Smithson in charge.

The Goodrich Tire Co. has construction under way on a new building at Twelfth and Grand Avenue, to house the Des Moines salesrooms and offices.

The Newton Auto Salvage Co. has leased the property at 1313-1315 Locust Street and will move in soon. The Newton company has recently been reorganized and M. H. Cohen and Frank Flynn have been taken into the firm.

The Warfield-Pratt-Howell Co., a Des Moines wholesale grocery company, has made a contract for the distribution of Falls tires for the entire state of Iowa.

The Shoberg Motor Co., Sioux City, has let the contract for its new building. The building will be three stories, of brick, with a terra cotta front, and will cost \$150,000.

H. L. Bell, president of the Iowa Motor Truck Co., Ottumwa, who was in Des Moines showing one of his trucks at the state fair show, announced that the company is now turning out three trucks a week and that Oct. 1, when the new 1½-ton truck is put on the market, the output will be increased to five a week.

COLUMBUS

May Get New Factory

COLUMBUS, OHIO, Sept. 6—Members of the Columbus Automobile Trade Association to the number of about 100 attended an outing held at Columbia Park, southeast of Columbus, Sept. 4. The arrangements for the outing were made by C. S. Magruder, the new manager of the association. The day was spent in games and various contests.

The Columbus Chamber of Commerce has been negotiating with the Willys-Overland Co. of Toledo for the location of its new factory building in Columbus. The plants at Toledo and Elyria will be retained and the proposed Columbus plant will be used for the maunfacture of the Willys-Knight.

The White Cross Auto & Tire Co. has been organized with a capital of \$25,000 to operate a garage and tire repair establishment on North Fourth

Street. The incorporators are: William C. Loss, E. R. Tweedie, Harry Vigor, Charles C. Poirles and Julius Diehr.

The Cole Motor Sales Co. of Columbus has been chartered with a capital of \$100,000 to handle the Cole cars. The incorporators are: C. F. Milliken, J. J. McNamara, Edward A. Neff, C. Edward Weis and E. L. Weinland. Neff has been named manager. The company will soon open in temporary quarters at 630 North High Street, and a new sales-room and service station will be erected at Washington Avenue and Broad Street. The concern will cover central Ohio for the Cole.

NEW YORK

Protests Truck Show

NEW YORK, Sept. 9—Truck dealers who are affiliated with the Automobile Dealers' Association have asked the organization to file a protest with the National Automobile Chamber of Commerce against selection of the Eighth Coast Artillery Regiment armory, in the Bronx, for the truck show Jan. 3-10, the same week as the car show. The association directors will meet this week and, it is understood, will decide upon a course of action, which may be in co-operation with the Motor Truck Association of America, an organization of truck owners

Dealers along the metropolitan row have shown growing discatisfaction with the truck show site, and many have announced their intention of withholding negotiations for space, with the hope that the N. A. C. C. will change its decision. With a passenger car show in progress at the Grand Central Palace, the dealers declare, it will be impossible to induce prospects to make the long trip to the Bronx. Several have suggested that the mid-winter truck show be called off and an exhibit of commercial vehicles be held in the open this month or next.

Distributers and dealers report a general improvement in deliveries in the metropolitan district. Gradual falling off in sales with the approach of fall and increased production are the causes. However, dealers are taking all the cars they can get for future delivery, and many are making arrangements to stock heavily through the winter, anticipating a renewal in the spring of the unprecedented demand for passenger vehicles prevalent throughout the summer.

The Dort factory branch, the only one in the company's organization, is rapidly completing its sales organization, which will cover southern New York, New Jersey and Connecticut.

The Colt-Stratton Co., Dodge distributer, has announced reopening of its course of instruction in the operation of the automobile. Students, who need not be car owners, pay \$10 tuition. The course, while teaching automobile operation in general, is of course built around the Dodge car.

KANSAS CITY

Dealers Plan Tour

KANSAS CITY, Sept. 5—The annual tour of the Kansas City Motor Car Dealers' Association will be taken late in September, the date and the route not having been selected. Motor truck dealers are particularly eager for this tour. More than sixty passenger cars and at least twenty trucks are expected to participate in the tour.

The rapid increase in facilities for distribution of passenger cars and trucks in Kansas City territory is indicated in the application for membership in the Kansas City Motor Car Dealers' Association. Fourteen dealers and distributers are now on the waiting list.

New models are being shown by some dealers. The A-B-D Motor Co. was one of the first to exploit the latest models, using page space to announce the arrival of the Cleveland. This company also distributes the Chandler. Day-Groom & Goodrich are the local retail dealers in Cleveland passenger cars.

The Jackson Motor Co. has changed its name to the Prairie Motors Co. Ivan de Mitkiewicz is president, with H. J. Eaton as secretary. The former name has been used while the company was distributing the Jackson car. It now handles the Kissel and Saxon.

The Burrell Engineering & Equipment Co., Patriot truck distributer, is located at 1817 McGee Street, former quarters of the Howard Motors Co., Hupmobile and Lexington distributer. The latter company continues also at this location, pending completion of its new building at Nineteenth and McGee Streets.

The Waddell-O'Brien Motor Co., Grant car and truck and Master truck distributers, with a branch at Wichita, Kan., will open a branch at Oklahoma City when a new building there is completed. Oklahoma City representation is now through an agency.

Ernest Anderson, former salesman for the Ellington Motor Co., has bought W. E. Ellington's interest in the company. Anderson will continue temporarily under the old name, distributing the Columbia, Crow-Elkhart and Maibohm. Retail sales in Kansas City for these cars is through the R. Q. McFarland Motor Co. Wholesale and retail headquarters are at 1701 Grand Avenue

G. T. O'Maley has discontinued handling used cars. Customers wishing to trade in used cars for new cars will be asked to make arrangements for disposition of such used cars independently of the O'Maley company.

Claire & Ross are opening the "C. & R. Used Car Co." on South McGee Street. They formerly handled used Fords in connection with the G. T. O'Maley establishment.

The Monroe will be distributed in Kan sas City territory by the Ferrell Motor Sales Co.



PRODUCTION SHOWS **BUT LITTLE CHANGE**

Labor Disturbs Parts Makers— August Figures Slightly Higher Than July

DETROIT, Sept. 5-Labor disturbances at plants of parts makers are still causing big production curtailment in the automobile factories of Michigan and Ohio. While approximately 7003 machines were run daily by 33 companies, an increase of 230 cars over the August record, when 6773 machines were turned out daily, the output of a number of companies was seriously cut by inability of parts makers to provide a steady flow of materials.

Briscoe, Barley, Chandler, Columbia, Hupp and Paige were unable to equal their July output, and during August produced fewer machines than they have made in months. The Hupp Motor Car Co. was probably the most seriously affected, its daily production dropping from 75 to 40. Briscoe production fell off 25 cars, Paige dropped 25 and Chandler 20. Dodge production, which was down to 375 in July, is now climbing again, September finding it once more normal.

All of the General Motors units maintained schedules and registered increases in several cases. This is noticeably true in the instance of the Olds Motor Works. On Aug. 29 a new production record was set, 230 jobs being run. Of these, fifty were trucks and the rest passenger cars. The Hudson and Essex production is climbing, the August record being 240 cars daily of both lines. Willys-Overland is now running 250 cars. an increase of 50 daily over July records.

The companies find their greatest difficulty in getting parts from Cleve-land parts makers. Owing to the Tim-ken-Detroit Axle Co. strike at Detroit, several companies looked to the Standard Parts Co., of Cleveland, for their axles. This threw so much extra business on the Cleveland concern that considerable difficulty was encountered in filling orders. The Timken-Detroit Co. is back at nearly normal production and axles are coming through with more regularity. A strike at the Bock Bearing Co. plant has curtailed bearing supply, while a general foundry strike in Cleveland caused many concerns to run short of foundry parts.

Flint Makers on Schedule

The Buick, Chevrolet, Dort and Paterson companies, of Flint, are encountering little trouble and are running on schedule. The Dort Co. has established a remarkable production record during the last five months, averaging around 100 cars daily with but slight variation. The general situation is excellent.

The Hudson Motor Car Co. has approximately \$8,500,000 worth of automobile material in its warehouses. With this vast supply in reserve, the company has been able to operate independently of parts makers and production is this plant is increasing accordingly. The Ford Motor Co. is averaging between 3000 and 3200 cars daily, the August record being approximately 3100 cars. This company is making onethird of all its bodies and, within two months, hopes to be turning out enough bodies to care for all of its needs.

Chalmers and Maxwell production is running nearly normal. Chalmers production is at 70 cars, while Maxwell is averaging 200.

Columbia Hit by Strike

Cadillac production is 80 daily, and Scripps-Booth is averaging 55. Columbia Motor Car Co. ran 500 cars in August and hopes to produce 750 in



September. This company was hard hit as result of the foundry strike at Cleveland, and, on September 2, was unable to produce a single machine. Fair production was resumed Sept. 3, and the company now believes conditions will adjust themselves rapidly.

The Reo Motor Car Co. is just getting

into fair production on its new Reo-6. It is still running the Reo-4 but expects to see the last of the 4-cylinder jobs finished by the last of the month. It will then devote its entire resources to 6-cylinder and truck production. This company is now running nearly 100 trucks daily and claims to be the greatest truck producer in the industry.

Liberty Keeps Up Production

The Paige-Detroit Motor Co. can not get sufficient parts and, as a result, this company is still running its old series when it should have been starting on its 1919-1920 series in August. The new cars will not be coming through much before Oct. 1. The company hopes then to be at work on two new models.

The Liberty Motor Car Co. has been able to maintain a production average of 40 cars daily although it has been hindered but not actually held up by parts shortage. The King Co. is running 15 daily and will start work on its new King models Nov. 1. It is having trouble in getting radiators, fenders and bodies.

The Briscoe Motor Corp. production was held up in August by the strike in the plant of the Jackson Metal Products Co., which was supplying the company with all of its fenders and hood covers.

MORE THAN 300 IN **BIG TRUCK SHOWING**

Iowa Parade Viewed by 20,-000—"Ship by Truck" Idea Prompted Demonstration

DES MOINES, IOWA, Sept. 4-Twenty thousand Iowans saw an unusual demonstration of motor transportation on the last day of the recent Iowa State Fair when a "ship by truck" parade was staged at the fair grounds. More than 300 trucks were in line, extending four times around the half-mile track at the fair grounds. The parade was headed by six fire trucks from the Des Moines fire department, and the cars shown ranged from half-ton trucks to large street flushers and oil tanks. Both dealers and users participated. Each dealer was allowed to enter but one truck.

Many of the trucks came from points as far away as fifty miles from Des

Production is now 60 cars daily, although it dropped to 50 cars daily in August. The Barley Motor Car Co. at Kalamazoo is only running 7 cars daily. It cannot secure sufficient parts.

At Cleveland, the Peerless Co. has increased production, averaging 25 cars daily in August, as compared with 15 daily in July. The Jordan Motor Co. ran 400 cars in August and hopes to boost this to 500 cars in September. Jordan production for the second quarter of the year showed 100 per cent increase over first quarter production, while third quarter production was 50 per cent greater than that of the second three months.

Chandler production dropped during the last six weeks, but it is now climbing again. On Sept. 2 production was averaging 110 cars daily. The Grant Motor Car Co. is averaging 40 cars daily.

Daily production statistics follow:

Company	June	July	Aug.
Buick	500	500	500
Briscoe	75	75	50
Barley	10	10	7
Cadillac	70	70	80
Chalmers	60	65	70
Chandler	100	90	70
Chevrolet	720	730	730
Columbia	30	30	25
Dodge	450	375	425
Dort	100	100	100
Ford	3,000	3.000	3,100
Hudson	110	110	120
Hupp	75	75	40
King	12	15	15
Liberty	40	40	40
Maxwell	200	200	200
Oakland	265	250	300
Olympian	10	9	9
Oldsmobile	140	140	160
Overland		200	250
Packard	25	25	25
Paige	75	75	50
Paterson	15	15	15
Jordan	15	15	15
Maibohm	7	10	10
Reo	125	1 2 5	150
Saxon	30	. 30	30
Scrings-Booth	50	55	55
Studebaker	165	165	165
Peerless	10	12	25
Winton	10	12	12
Essex	110	110	120
Grant	40	40	40
			7.000
Total	6,644	6,778	7.003

Many New Models Exhibited At Greatest Indiana Show

Exhibit Proved the Present High Demand for Better Cars— Truck Sales Were High, with Unexpected Interest Shown in Tractor Work

INDIANAPOLIS, IND., Sept. & (Special Correspondence) — This city has just staged its greatest automobile

The 1920 models were displayed in the New Manufacturers' Building on the State Fair grounds, in which there are 80,000 sq. ft. of exhibit space. The future importance of the automobile business was proved by the fact that the State legislature appropriated \$100,000 for this building and the fact that, afternoon and night, during the six days of the exhibit, it was crowded with interested spectators.

With more space than any former Indianapolis show has ever had, there was not room for all the showing, and some car and truck exhibitors, seeking to obtain space at the last minute, were compelled to show outside. With more economy in space, these displays might have been taken care of to the genera!

betterment of the show.

The show was the nineteenth annual exhibit of the Indianapolis Automobile Trade Association, and was staged all of this week in conjunction with the Indiana State Fair. Practically every dealer of motor cars, trucks and accessories in Indianapolis had displays. The other great end of the automotive business—tractors—was shown in another part of the grounds, with other power farm machinery. Tests, exhibitions and demonstrations were carried on in a near-by field.

Ninety-eight exhibits were held in the automobile show and there were, perhaps, a dozen outside of the big hall. The decorations were especially artistic. It was declared by the dealers that the show was the most beautiful ever held here. Many compliments have been showered on the show manager, John Orman, and the members of the show committee, headed by A. B. Wagner.

The Indianapolis show, perhaps, stands as an argument for the fall show, instead of the midwinter or spring show. The reason was that there was greater interest in the newer cars, more talk about the new models and designs and more interest from a merchandising point of view on the part of the dealers in the newer models.

The show was not designed to stimulate sales. The dealers here have piled up orders, awating delivery, and it is not expected that this condition will change soon. Distributers in Indianapolis are hesitating about signing up too many dealers, with few cars to deliver. Dealers are slow about making preparations for the sales of cars whose deliveries will

be doubtful for many months to come, unless industrial and economical changes come overnight. There is not an Indianapolis dealer who could tell his agents out over the State that there would be plenty of cars. The best that could be promised was the start of the building of a post-war selling program which would be mutually beneficial when the full readjustment comes.

High prices scarcely could be considered a deterrent to sales, as the show evidenced. They seem sensibly to realize that the increases in car costs do not seem to be proportionate with the cost of other commodities, and that an immediate change in the automobile price situation does not appear probable. What the Indiana people want, according to observations by A. B. Wagner, president of the automobile association, is a higher class of car, better appearing and with more conveniences. Low first cost is not the essential factor this year, and is in no sense a measure of motor car value.

Sufficient new models were displayed to give the show a touch of novelty. In this respect, Indianapolis has "scooped" the other shows. Many dealers and owners studied the Overland Mystery car, a four-cylinder car, about which much has been rumored. With a wheel base of 109 in., the employment of unique spring suspension gives it an apparent wheel base of 130 in. The springs are extended 15 in. beyond the front and rear axle. The National Sextette was shown for the first time and attracted much attention. It has many new features, particularly a long, lithe body that contributes much "dash."

The new Cleveland car was paraded for the first time. A chassis construction giving easy riding at any speed is the touted feature of this car. The Grant Six, a distinctive looking car, was out for its premier. The latest type Velie made its debut, as did the Monroe, shown for the first time since the Monroe has been made at Indianapolis by the William Small Company.

Perhaps greater interest was shown generally in the motor truck models. There was little sentiment in the motor truck interest. It was all business, utility and service. Indiana is shaping up her highways. The rural motor express, return loads, and shipping by motor truck doctrine in Indiana has had wide propaganda value during the past few months and the dealers are preparing a rich harvest on these movements. The small town business man, the farmer, the big city wholesaler and the truckman, in

fact about everybody with hauling problems, appears interested in the truck as a means of better, cheaper and quicker transportation, and this was easily apparent in the show activities.

Within the past year, the motor truck, with the publicity furnished by the Chambers of Commerce, is beginning to

have its big effect.

"I never saw so many truck dealers," said one exhibitor who had just concluded an intensive truck sales campaign in Indiana.

In the field where the tractors were shown interested farmers congregated and watched the varied performances. There the tractors did everything they were asked to do. The tractor is about ready for budding, so to speak, in Indiana, with the idea of power farming as the big agricultural background.

CUT ARMY SURPLUS OF CARS IN HALF

WASHINGTON, Sept 5—More than 18,000 trucks and cars out of the Army surplus of 38,000 existing when the armistice was signed have been transferred by the War Department to other Government bureaus, according to testimony by Brig. Gen. C. B. Drake, Chief of the Motor Transport Corp., before the House investigating committee. Thirteen thousand of these vehicles have been turned over to the Department of Agriculture for road construction, 780 to the Public Health Service, Treasury Department, and 4886 to the Post Office Department.

Public selling of surplus vehicles can not be made, it was said, until the requirements of other government bureaus have been determined but the disposal of all unserviceable vehicles is now being directed.

G.M.C. Profit For Six Months Is \$29,125,942

DETROIT, Sept. 4—Undivided profits of \$29,125,942.10 of the General Motors Corp. for the first six months of this year are equivalent to \$19.25 a share on \$151,301,100 of common stock outstanding June 30. Net profits, after allowance for taxes, insurance, depreciation, bonus and employees' investment fund were \$48,900,800.63, according to a statement just issued.

Deductions for federal taxes and extraordinary expenditures aggregated \$17,606,536.25, leaving \$31,194,164.38 from net profits of which the General Motors Corporation's share was \$30,509,987.60 During period \$522,392.50 was appropriated for dividends on the preferred and \$943,653 on the debenture stock.

Profit and loss surplus of \$36,937.43 Jan. 1, 1919, with the undivided profits for the first half of the year total \$65,534,879.53. Appropriations at three per cent for two quarterly dividend disbursements on the common stock were \$4,420,974 May 1, a total of \$8,842,434, leaving

profit and loss surplus of \$56,692,455.53 June 30, a net increase of \$20,283,508.10 for the six months.

The balance sheet shows resources of \$363,854,793.09 June 30 with current and working assets of \$233,468,273.57, current liabilities of \$42,636,354.86 and net working capital of \$190,831,918.71.

Investment in real estate plants and equipment less \$13,440,483.24—reserve for depreciation—was \$80,697,966.18 and investment in allied and accessory companies was \$10,762,942.06. Good will, patents, copyrights, etc., are appraised at \$35,714,893.43 and deferred expenses total \$3,210,717.85. Current assets include cash on hand and in banks, \$74,799,443.50; Liberty bonds, \$21,709,030; inventories at cost or less, \$98,975,540.56; notes and accounts receivable \$29,160,-253.49, of which notes comprise \$2,151,631 and sight drafts against bills of lading attached, \$8,603,665.36.

Current liabilities include accounts payable, \$28,170,146.05; notes payable, \$3,767,284.28, and taxes and payrolls accrued but not due, \$10,698,924.53.

CONGRESS CONSIDERS A NEW THEFT LAW

ST. LOUIS, Sept. 5—The Motor Vehicle Theft Act, carrying with it a penalty of ten years imprisonment for the theft of a motor car, as framed by the National Automobile Dealers' Association, and introduced into Congress by Representative L. C. Dyer and C. A. Newton of St. Louis, is now before the sub-committee of the House Judiciary Committee, of which Congressman Dyer is chairman.

The measure, desgined to check automobile thefts, is a combination of the Dyer and the N. A. D. A. measure. The representative's original bill not having been regarded as broad enough to cover the situation, he substituted the measure offered by the dealers.

The Dyer bill is expected to be reported from the committee substantially as follows:

Who ever shall in any state, territory, or the District of Columbia steal or unlawfully take, or carry away or conceal, with intent to convert to his own use, any automobile, automobile truck or any other motor vehicle, or shall buy or receive or have in his possession any such automobile, automobile truck or any other motor vehicle, knowing the same to have been stolen, or shall thereafter, in any other manner or means transport such automobile, automobile truck, or other motor vehicle in interstate commerce, to any other state, territory, or the District of Columbia, or to a foreign country shall be deemed guilty of a felony and upon conviction thereof shall be punished by imprisonment for not more than ten years.

Whether a motor car driven from one state into another is a part of "interstate commerce," and therefore within the constitutional power of Congress to regulate is a technical point involved in the law, according to C. A. Vane, attorney for the association, who points out that the Supreme Court has never decided that a cotor car so used is in interstate commerce.

The bill was drawn by William Baer, who is an assistant circuit attorney of St. Leuis.

Huge Car Shortage Forces Double Production for 1920

Motor Industry Faces Greatest Demand In Its History—Millions Being Spent for Expansions—Markets Expected Strong for at Least Two More Years

DETROIT, Sept. 6 (Staff Correspondence)—Every automobile company in Michigan and Ohio plans to increase production in 1920 from 33½ to 100 per cent. The demand for automobiles was never greater in the history of the industry and the industry is confident that it will continue just as strongly for two or more years.

Automobile manufacturers believe there is a shortage of 2,500,000 cars. By rushing production during the remainder of this year, 1,500,000 cars may be manufactured. But even this output will fall far short of the demand and the industry is facing a problem of double production if it hopes to care for its foreign as well as domestic business.

The automotive industry is investing millions in new plants and equipment, and the present investment will be but a small figure compared with the expansion already scheduled for the coming twelve months. In drafting a huge building and expansion program, the General Motors Corp. has but paved the way for similiar programs on the part of other companies.

All of the General Motors units will be able to double production when their present plant construction work is completed. The Cadillac Motor Car Co. will have a complete new plant. The Scripps-Booth Co. has just purchased the new Saxon factory. The new Cadillac plant will permit a production of approximately 250 cars daily. Scripps-Booth, now running 55 cars a day, will double production in its new quarters.

The new Maxwell-Chalmers plant will double production facilities there. When the Maxwell division is housed in its new factory the present plant will be devoted exclusively to Chalmers production. This will permit the two concerns to run an average of 600 cars daily, more than twice the output of the present season.

Additions to the Buick and Chevrolet plants at Flint will greatly increase the output. Approximately \$4,500,000 is being invested by General Motors at the Olds Motor Works. This company has just set a new production mark of 230 jobs in one day. Of these, 160 were passenger cars. It will turn out 41,000 cars this year, and with its additions in oneration hopes to produce 80,000 in 1920.

It is rumored at Flint that the Dort Motor Car Co. will have a new factory, erection of which will start this fall. This cannot be confirmed at the factory. Dort production this year will reach 17,000, officials declare, and every effort

will be made to build 30,000 machines next year. This can be done by making factory alterations. This company has purchased and installed \$250,000 worth of new machinery in its present plant.

The Ford Motor Co. will run two million cars in 1920, and will make such changes as is necessary to bring its daily production up to the 3600 mark. Several new units are under construction at the Highland Park establishment. At River Rouge, the Ford shipbuilding plant is being converted into a body plant. Already 500 bodies are being turned out daily.

The new plant that the Hudson Motor Car Co. is building for its Essex department will permit it to devote its entire present establishment to Hudson production again. This company is running 240 of both machines daily and will build 40,000 this year. A schedule of 80,000 machines in 1920 is contemplated.

The Briscoe Motor Corp., at Jackson, is planning to run 35,000 cars in 1920. It will double the size of its present plant. Construction has been started. The Barley Motors Co., Kalamazoo, will run 5000 cars in 1920. This will be a production increase of 50 per cent.

The King Motor Car Co. will be in a new factory next year, if present plans materialize. Its 1920 production schedule calls for 5000 machines. The Liberty Motor Car Co. will double production in 1920. It is now running 40 cars daily, and with its new plant completed it will be able to run production up to 25,000 cars with ease. The Columbia Motors Corp. is planning a 50 per cent production increase next year.

The Hupp Motor Car Co. expects a

The Hupp Motor Car Co. expects a big production increase. This company is 8000 orders ahead of production. The 1919 schedule is 18,000 cars and this will probably be run up to 30,000 within the next twelve months.

The Paige-Detroit Motor Car Co. will go after export business in 1920 for the first time. This company already has a splendid foreign trade which came to it unsolicited. It is unofficially announced that this company is planning a branch factory in Canada to care for its European trade. The company will run about 30,000 cars this year and will greatly increase this in 1920.

At Cleveland, the Chandler Motors Car Co. proposes to build between 25,000 and 30,000 cars next year.

The Peerless Motor Car Co. will double production in 1920, and is now making plans accordingly. A new plant for the Jordan Motor Car Co. will permit great production expansion there.

MAKERS ARE INVITED TO THE 1920 SHOWS

First Space Allotments Early in October—Ask Thousand Makers To Enter

NEW YORK, Sept. 6—Car and truck makers, as well as accessory manufacturers, were receiving this week the invitation blanks for application for space at the 1920 National Car and Truck shows to be held here and at Chicago in January. Nearly one thousand of these were being mailed, with the National Automobile Chamber of Commerce, promoters of the two exhibitions, certain that the coming events would prove to be the largest in the history of the industry.

Show plans call for the closing of the first allotment requests on Sept. 27, with the first drawing for space to be held at the organization's offices here on Oct. The method of drawing for these places throws an interesting sidelight upon the activities of automotive factories during America's participation in the world war. First choice of exhibit space to members of the chamber is based upon yearly production, but war work during the last two years has caused many companies to fall below their normal volume of output. This might tend, it was thought, to place their chances for worth-while space behind other companies that last year produced only cars.

As a result, the show officials have determined that each company participating may name as its production figure for the drawing that of its best twelvementh period during the last three years. Fairness to all manufacturers was the aim sought, with credit allowed for munitions making or other patriotic work during the great conflict.

Members of the chamber have the first choice based on these production figures. After their needs have been satisfied, other makers may call for exhibit room. The plan will be followed for both cars and trucks as well as for accessory makers. The Motor and Accessory Manufacturers' Association cooperates with the chamber in promoting the show and their members will have the first call.

Show space will be allotted on invitation from the two associations. Consequently, the invitations are being sent widely so that a representative exhibition may be had. Figures, as announced to-day by Alfred Reeves, general manager of the automobile chamber, showed that blanks were being sent to ninety-five passenger car makers, 240 truck manufacturers and about 625 accessory companies.

"Many new companies recently organized have asked already for space allotment and the early indications point to a showing much in excess of previous years," Reeves said.

The New York show will be held the

week of Jan. 3, with passenger cars and accessories being housed in the Grand Central Palace and truck and accessories in the Eighth Coast Artillery Armory. The Chicago dates are Jan. 24-31, passenger cars being shown at the Coliseum and trucks at the Drexel Pavilion.

OTTAWA MAY HOLD MID-WINTER SHOW

OTTAWA, ONT., Sept. 4—The Ottawa automobile trade may have a midwinter automobile show next February or March. It is proposed to stage the Ottawa show immediately after the motor exhibition is held in Montreal

Bijur Strike Ended

HOBOKEN, N. J., Sept. 5—The strike of toolmakers and machinists at the Bijur Motor Appliance Co., which has been in progress since June, has been terminated and a large proportion of the men have returned to work. The settlement was made on the basis of a 48-hr. week with an increase of 5 per cent to apply to all hourly employees. The original demands were for a 44-hr. week with 48-hr. pay.

Hoffman Bros. To Make Car

ELKHART, IND., Sept. 4—The Hoffman Bros. Motor Co. will put a new six-cylinder passenger car on the market after Dec. 1, and is erecting a \$200,000 addition to the present motor truck plant here, which will be completed before winter and will be used for the increased production.

No details of the construction of the new passenger car have yet been made public. The Hoffman Bros. Co. established the truck plant here a year ago, and has been averaging five trucks a day. The passenger car output will be ten a day.

Baltimore Dealers Enlarge

BALTIMORE, MD., Sept. 5—The Baltimore Automobile Dealers' Association has moved into new quarters at 1228 North Charles Street. Negotiations, however, are under way for permanent quarters in which the association will establish a dealers' club, with grill, billiard and lounging rooms.

Dealer Contracts for Curtiss Output

MILWAUKEE, WIS., Sept. 4—George W. Browne, who for several months has acted as distributer of the Curtiss airplane in middle western territory, has contracted to market the entire output of the Curtiss aircraft organization and will open headquarters in Chicago. Browne will divide his time between Chicago and Milwaukee. He will retain his interest in the Overland Wisconsin Co., distributer of the Overland and Willys-Knight.

His local aircraft business, incorporated as George W. Browne, Airplanes, Inc., has been taken over by Lieut. Gilles Meisinheimer, who managed the business for Mr. Browne since its establishment in April.

ADDITIONS TO MARMON PLANT DOUBLE CAPACITY

INDIANAPOLIS, Sept. 5—Nordyke & Marmon Co.'s new No. 3 plant, consisting of a five-story body shop 600 ft. long. a one-story final assembly building 900 ft. long and a power plant and other building, is rapidly being rushed to completion. This new addition practically duplicates in floor space the huge machine shop built during the war for the production of U. S. Government aviation motors. The No. 2 plant, which was erected in the summer and fall of 1917. a one-story building, approximately 60% ft. square, will be devoted entirely to machine shop work.

According to the latest plans, a portion of the plant expansion will be completed during the early fall and will be placed in production shortly after completion, giving the company facilities which will enable it to double its present output.

There will be an aggregate of more than 300,000 sq. ft. of floor space in the new buildings. Five floors of the building 600 ft. long will be used for body manufacturing and the facilities will enable the company in the future to manufacture all of its own closed bodies, as well as bodies for open cars. The buildings are fireproof, the body plant being of a poured reinforced concrete, while the assembly plant is of steel and brick with cement floors.

Magruder Managing Columbus Association

COLUMBUS, OHIO, Sept. 5—C. S Magruder, a former newspaper and publicity man, has been made manager of the Columbus Auto Trades Association. Permanent headquarters for the association have been established at 35½ North High Street. The association has opened a used car department and also a credit bureau. Arrangements are being made to hold the annual picnic in the near future.

Taxes Returned to Agencies

ST. LOUIS, Sept. 5—Automobilsales agencies and branch agencies separately incorporated from the manufacturer's corporation for which they distribute are placed on a parity for return
of excise taxes with dealers who have
no connection with the factory organization, according to Treasury Decision 2900
furnished to the National Automobile
Dealers' Association.

Previously the revenue department has held that a sale by such an agency was a sale by the manufacturer and as such the tax was that due on the price actually paid by the customer for the car instead of the price for which the manufacturer sold it to a dealer not connected with the manufacturer's corporation. As a consequence a branch house tax made the total price of the car higher than the dealer's price, or else reduced the branch house profit to less than the dealers' profits on the same car.



NO PRICE HAGGLING AT MINNESOTA SHOW

Dealers Faced New Problems At Fair Exhibits—Shortage Cost Sales

MINNEAPOLIS, Sept. 6—New problems and new conditions faced the exhibitors at the annual motor show held here this week in connection with the Minnesota State Fair. Many were confronted with the inability to obtain models to exhibit and many others found themselves called upon to solve an unexpected and unusual situation in regard to farmer prospects.

At previous showings, farmers and other would-be purchasers have haggled and balked over prices, often basing their sales not upon the car itself but the price they would have to pay for it. But it was not so this year. In the first place, the farmers are purchasing better cars than ever before and are willing to pay the prices for the better models. The haggling, if such a word may be used, concerned construction principles and mechanical betterments.

One dealer expressed himself by saying that the farmer to-day is paying \$1,500 now where previously he paid \$500. It was quickly discovered that it was better to talk less about price and more about the points of the car.

"We find that it is no longer wise to talk to a prospect at this Fair as if he must know little about a gas engine and an automobile," said an enthusiastic salesman. "We talk now as if the prospect knows as much about the machine as we do, comparatively speaking. That flatters him, and we find generally it is true that the purchaser understands the different principles involved. All we have to do is to show where the principle of cooling in our machine, for instance, is superior to another principle. That is the way we are getting them this year."

The show was first and foremost a strictly business exhibition. Only a few dealers attempted to decorate their exhibits. The equipment shown consisted simply of 1920 models, as far as was possible, although, in cases where the new cars had not arrived, the exhibitors were forced to content themselves with posters and display cards announcing briefly the difficulty that had prevented arrival of the late models.

The showing lasted eight days this year, two more than in former years, and it was estimated that three-fourths of all the fair attendants visited either the car or the tractor sections. One day, for instance, drew a crowd of 201,000, a number larger than the population of any city in this state or the Northwest with the exception of St. Paul and Minneapolis.

The Minnesota fair is essentially a farmers' fair and more attention was paid to business by the dealers and their sales forces than to dressing up their temporary places of business. The automobile show proper occupied the entire first floor of the Varied Arts Building, while the accessories were displayed on two sides of a broad aisle on the second floor, in about one-half the space of the main show. For lack of space the tractor show and part of the truck exhibits were in Machinery Hall, and on Machinery Hill, a half mile distant from the automobile show.

The dealers were handicapped in more than one way. Some were unable to get cars for the exhibit, or got them late and many were unable to assure deliveries when sales were made.

Only one factory, the Maxwell, utilized a running model for display. As a rule, dealers contented themselves with talking points with a dead car as the sample. Where dealers could not get 1920 models, they pointed out any improvements that had been made, using as models the 1919 cars that were on exhibition.

One firm, P. J. Downes Co., paid the regular space charge merely to show two cards announcing: "Watch us. Our two new lines of regular light six and eight. Our two new trucks, internal gear, worm drive." This left it to the imagination what line will be taken on by the Downes Co., which handles the Nash.

Dealers who handle trucks invariably displayed both passenger cars and commercial lines. Their aim was to get all the business from prospects. The Holmes people failed to get their exhibit car and simply announced on a small card: "Car delayed in transit. Expect it any day."

COMMONWEALTH HAS NEW TOURING MODEL

CHICAGO, Sept. 4—Several improvements and refinements are embodied in the 1920 model touring car announced by the Commonwealth Motors Co. The wheelbase has been increased from 115 in. to 117 in., permitting the fitting of a body having 3 in. additional room at the rear end. The frame is Parish & Bingham, of drop rear end type and 5 in. channel section and the rear springs are underslung in the new model.

The full-floating axle remains as before, but final drive is now of spiral bevel type instead of the straight bevel used formerly. A 3½ x 5 in. Lycoming engine is used. The price of the new model is \$1,395, as compared with \$1,195 for the preceding model. Wire wheels are fitted at a cost of \$125.

Moline Plow Rebuilding

MOLINE, ILL., Sept. 6—Plans have been made for the construction of a plant to replace the Rock Island tractor plant of the Moline Plow Co., which was destroyed by fire last week with an estimated loss of \$500,000. About half of the plant was damaged and production temporarily discontinued. The building destroyed was 400 x 100 ft. It was erected two years ago. Much of the machinery was especially built and cannot be replaced quickly.

COE JOINS N. A. D. A. IN EASTERN FIELD

Secretary Moock Announces Boston Man Will Open Offices In That City

ST. LOUIS, Sept. 4—Harry Moock, business manager of the National Automobile Dealers' Association, has announced the appointment of Charles F. Coe as eastern field secretary of the N. A. D. A., with headquarters at 5 Park Square, Boston.

Coe organized and directed the campaign for membership of the New England Automobile Board of Trade, which later was merged with the N. A. D. A., and was its chairman. After he resigned as Chevrolet branch manager at Boston to enter war work, he was program director of the U. S. and Allied Governments' Bureau of Expositions. Under his direction at Waco, Tex., in connection with the Texas Cotton Palace, 148 airplanes were in the air at one time for two hours without mishap.

During the Fourth Liberty Loan drive Coe was campaign director for the Boston district. He is a gifted speaker and writer, and has spoken on sales and sales organization, and is regarded as an expert on selling and publicity. He is president of Coe, Inc.

NO NEW PACKARD SIX FOR SEVERAL MONTHS

DETROIT, Sept. 4—No announcement concerning the marketing of a six-cylinder car by the Packard Motor Car Co. is pending in the immediate future. If such a car is to be built by the Packard company it is still in the formative stage, company officials say, and its appearance is a matter of months, if not of years.

It is generally known in the industry that the Packard company has been working on a new model, but company officials can see no reason why this should cause the circulation of new car rumors, inasmuch as the engineering department has conducted such experimental work for years. The company now has a number of experimental cars in its shops, ranging from four-cylinder machines to models in which sixteen-cylinder engines have been installed.

It was rumored here this week that when the Packard company places a six-cylinder car on the market it will discontinue the manufacture of the twinsix. This was positively denied at the plant. The company states it will never discontinue the manufacture of the twinsix machine.

Highland Body Opens Detroit Branch

CINCINNATI, Sept. 6—The Highland Body Manufacturing Co. has opened a branch in Detroit, in charge of P. H. Willia



ARMY WILL TRAIN MOTOR MECHANICS

First of Four Schools to Open at Camp Holabird — To Graduate 6000 Yearly

WASHINGTON, Sept. 5—Secretary of War Baker formally opened to-day, at the Motor Transport Corps General Depot, at Camp Holabird, near Baltimore, a vocational school for enlisted men. There will be four hundred men in this, the first of four similar schools to be opened by the Motor Transport Corps during the next three months for the training of enlisted men in automotive work. The other three will be at Camp Jessup, Atlanta, Ga., Camp Normeyle, San Antonio, Tex., and Camp Boyd, El Paso, Tex.

When the four schools are in operation, it is expected that trained mechanics and chauffeurs will be graduated at the rate of about six thousand per year. The idea of the schools belongs primarily to Col. J. W. Furlow, U. S. A., who, at the time of the Pershing expedition into Mexico, was in charge of the mechanical upkeep of army trucks. Experience taught him the value of trained men.

To Continue War Plan

When the United States entered the world war four reconstruction camps were built at points strategically located with reference to the future motor transport needs in this country. These shops were designed to keep in repair the large number of motor vehicles needed by the army in this country during and after the war and to serve as training schools for the necessary mechanical personnel.

It has been found necessary to continue this plan because there is a dearth of skilled operators and repair men available for the domestic automotive industry.

All men entering the Motor Transport Corps will be put through a preliminary course of military instruction of four weeks duration. Thy will be taught the rudiments of drilling, the manual of arms, guard duty and other such purely military tasks. Each man will undergo a psychological test and a trade test. At the end of four weeks, he will receive a classification card that will put him either into a school for chauffeurs, for repair mechanics or for inspectors and foremen.

Ten Courses for Mechanics

The school of the chauffeur will last eight weeks and is designed to train drivers who will be able to safeguard a vehicle by proper inspections, to make emergency repairs, to differentiate between conditions that are serious and those which can wait for attention until it is convenient to make repairs. Each student will be drilled on the rules of the road, especially driving in convoy formation

Ten parallel courses of instruction of sixteen weeks each are provided for in the school for mechanics. Each of these courses is founded upon some fundamental trade, and is intended to prepare a man to enter a given line of work in commercial life. The courses are for machinists, automobile mechanics, ignition and carbureter specialists, battery repairmen, welders, tire repairmen and wheelwrights, blacksmiths and spring makers, sheet metal and radiator workers, wood workers and salvage experts. The aim will be to give fundamental training. In this manner, expert mechanics will be produced who, at once upon re-entering civil life, will be assured of good positions.

Will Train Foremen

The next course will be for those men who excel in the work of the preceding courses and who, in addition, are able to handle men. Such students will be eligible for foremen or inspectors, possibly, in time, for teachers in these schools. This course of instruction covers sixteen weeks and is designed to round out the pupil's previous experience.

The last and highest grade in the school plan is a course of sixteen weeks in one of the stronger technical schools of the country. It is especially planned for men of good education, who have had the training given in the preceding courses as well as considerable motor transportation experience. By this year of instruction it is hoped to qualify them for positions of responsibility in the automotive field.

A precedent is being established in these schools not only in that they are the first vocational schools of the army but likewise in the fact that civilians as well as officers are to be used as instructors. Dean A. Fales, formerly of the gas engine department of the Massachusetts Institute of Technology, will head the Holabird school.

Naturally, the army will endeavor to retain the best of its graduates from these schools as instructors, foremen and officers, but all except these few will return to civil life with a thorough automotive training.

Pan Checker Board

SAINT CLOUD, MINN., Aug. 30—A clever advertising stunt in the form of a cardboard checker board with cardboard disks for checkers has been mailed out by the Pan Motor Co., containing a picture of its Pan tractor with the words "Your best move" on the outside.

New Plant for Zenith

CLEVELAND, Sept. 6—The Zenith Tire & Rubber Co. has let contracts for the erection of its new plant, to cost \$500,000. Construction work will start Jan. 1. The site for the plant was purchased three weeks ago at a cost of \$250,000.

The directors, at a recent meeting, voted to increase the capital stock from \$10.000,000 to \$20,000.000. The company will manufacture cord tires only.

DETAILS OF WILLYS COMPANY REVEALED

Proposed Six to Be Built by Duesenberg—Financial Plan Announced

NEW YORK, Sept. 4—Further details of the make-up of the Willys Corp., announcements of which have previously appeared in Motor World, were made public here to-day by officials of the new company. These revealed that the proposed new six-cylinder car would be manufactured at the plant of the Duesenberg Motors Corp., at Elizabeth, N. J. and that the single chassis to be built would embody many of the features of the new Overland four, which is just getting into production at Toledo.

The corporation, according to to-day's announcement, "will permit the further expansion of the Electric Auto-Lite Corp. of Toledo; the New Process Gear Corp., of Syracuse, N. Y., and the properties of the Duesenberg Motors Corp. The new corporation also will own securities of the Willys-Overland company, the Fisk and Federal rubber companies, the Bridgeport Crucible and other corporations."

The capitalization will consist of \$15,000,000 cumulative 8 per cent first preferred stock, \$10,000,000 cumulative 7 per cent second preferred stock and 5,000,000 shares of common stock, of no par value.

"The Willys Corp. has made a contract with the Willys-Overland company whereby the latter will market the new six, organizing a separate sales unit for this purpose," the announcement continued. "This contract extends over a period of years. Both the Auto-Lite and the Gear corporations will continue as distinct units and will not in any way lose their identities in the new corporation. The general automobile parts business of both units will be continued and expanded."

NEW CLEVELAND HAS ORDERS FOR 30,000 CARS

CLEVELAND, Sept. 5—The Cleveland Automobile Co., although but a few months old and with its factory recently completed, has orders for more than 30,000 cars for the present automobile year, and will increase the capacity of its plant. The factory has been in production since July 31. On that day, 103 working days after the building was started, the first car was completed.

Three Cars Adopt Prest-O-Lite

INDIANAPOLIS, IND., Sept. 4—Three manufacturers of motor cars, the Chandler, Grant and King, have adopted the Prest-O-Lite storage battery for standard lighting and starting equipment. Type 613 R. H. N. has been selected.



ROAD CAPACITY DISCUSSED BY A. A. A. CHAIRMAN

WASHINGTON, Sept. 6—Freight roads and passenger roads are probabilities of the comparatively near future in congested sections of the country, according to Chairman George C. Diehl of the Good Roads Board of the American Automobile Association. He has sent a communication to this effect to the office of the Chief of Engineers of the War Department, in response to a communication from Gen. W. M. Black. Diehl, commenting on the up-to-date highways problem, said in part:

"There will never be a time when all roads are of equal durability and carrying capacity. Highways and railroads are analogous, in that they are both designed to carry traffic, and general rules which have been developed through scientific management of railroads apply as well almost invariably to highways.

"There must come a classification of highways. Over Class 1 the heaviest motor trucks and trailers would be permitted; each truck should have large figures conspicuously placed on the sides to indicate the total weight that it was permitted to carry; operators and owners of the trucks should be prosecuted for using the heaviest trucks on roads designed for lighter traffic. It would be comparatively simple to enforce such provisions, as there seems to be no defense of the proposition of permitting one or two heavy trucks to ruin an investment of many thousand dollars on the lighter constructed highways."

Monarch Now General Tractor

WATERTOWN, WIS., Sept. 5—The Monarch Tractor Co., with factories at Paulsboro, N. J., and Brantford, Ont., has increased its capitalization under the name of General Tractors, Inc., and has opened offices in Chicago and New York. It will add a garden tractor for truck gardening and vineyard cultivation to its line of creeper type tractors.

Panhard Now Apex

GRAND HAVEN, MICH., Sept. 4—The Panhard Motors Co. has changed its name to the Hamilton Motors Co. and its product will be known as Apex trucks. The change was made at the request of Panhard Levasser Co., Paris, France. The 2½-ton model, formerly \$2350, has been raised to \$2.475.

Cleveland Office for Thermoid

TRENTON, N. J., Sept. 5—The Thermoid Rubber Co. has opened sales offices at 1302-3 Swetland Building, Cleveland. H. R. Portugal will be in charge of sales and Carl A. Schell in charge of engineering.

Auto Outing Activities

BALTIMORE, MD., Sept. 5—In order to focus attention on Buick cars and Selden trucks distributed by it, the Auto Outing Co. is conducting a lively newspaper advertising campaign. In its advertising it brings out the improvements in the cars and trucks of the present day from the time of their beginning and shows their peculiar fitness for the needs of to-day.

It has added to its Selden truck sales force Henry Fisher Cogill, formerly with the Vim Motor Truck Co. of Philadelphia and more recently in the Naval Aviation Division of the Army.

Three Offices for Bates

LORAIN, OHIO, Sept. 5—Three principal offices have been established by the Bates Steel Mule Co. of Ohio. The main office here is in charge of A. K. Hibbard, who organized the Ohio business in Cleveland in 1918. The Cleveland office has been moved to 118 St. Clair Avenue and is managed by J. P. Jones. The Columbus business is in charge of Harvey W. Smith at 1300 Summit Street.

Armleder Discontinues Wagons for Trucks

CINCINNATI, Sept. 5—The O. Armleder Co., which has been building delivery wagons for the last 38 years and trucks for the past 10, has discontinued the horse-drawn vehicle business. It is remodeling its plant to devote it exclusively to motor truck manufacture.

LOUISVILLE DEALERS' TWELFTH ANNUAL SHOW

LOUISVILLE, KY., Sept. 5—The twelfth annual exhibition of the Louisville Automobile Dealers' Association will be held Feb. 23-28 in the First Regiment Armory, which covers 54,000 sq. ft. of floor space. Additional space will be afforded the accessory displays if the contemplated use of the balcony is effected.

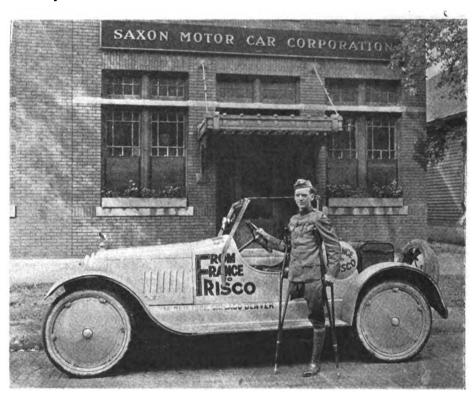
Union Truck Gets New Plant

BAY CITY, MICH., Sept. 5—Plans have been completed for the new plant to be erected in this city for the Union Motor Truck Co.

L. M. Field Organizes Distributing Agency

SAN FRANCISCO, Sept. 4—L. M. Field, with the Frank O. Renstrom Co. for the past four years, has resigned to go in business for himself. He has been given the Selden truck agency for northern California.

E. S. Nevins, cashier of the First National Bank of Clovis, has been elected treasurer of the new concern. E. W. Pappert, San Francisco, sales manager of the Frank O. Renstrom Co. for some years, has given up his position to become associated with L. M. Field.



From France to San Francisco in a Saxon Six

Paul L. Bolin, 167th Infantry, Rainbow Division, after spending over a year in France and being wounded at Chateau-Thierry, arrived recently at New York. He bought a Saxon Six special military speedster and is now on the first lap of his trip from France to San Francisco. He carries government moving pictures of the battle of St. Mihiel, and lectures at various cities en route. On his arrival at San Francisco he has a contract with William Fox to appear in war pictures. He is decorated with a Croix de Guerre. His home is at Birmingham. Ala.



EXCISE TAX REVISIONS RESULT OF CONFERENCES

NEW YORK, Sept. 5-Revisions of the administration and methods of collecting the present Federal excise tax on automotive products were promised here to-day by officials of the Motor and Accessory Manufacturers' Association, who, co-operating with officers of the National Automobile Chamber of Commerce, have just held a series of conferences at Washington concerning the proposed changes. The revisions are expected within a few days and particularly will concern the collection of the tax on parts and accessories.

The announcement revealed that the administration of this tax now has been placed under James M. Baker, deputy commissioner of the Bureau of International Revenue, who asked for the conferences in the hope of co-operating with the trade in its collection. It was considered that the administration of it had been contrary to many practices of the industry and that co-operation was needed to remedy the unpleasant situation. The conferences were the result.

The subject under discussion, of course, was Regulation No. 47, in so far as it related to the provisions of Section 900, sub-divisions 1, 2 and 3 of the Revenue Act of 1918, covering the excise tax on automobile trucks, automobile wagons and other automobiles, tires, tubes, parts and accessories.

Another conference will be held at Washington probably during the week of Sept. 15 when a number of additional subjects will be discussed.

WHITE TO MAKE NEW CAR AT INDIANAPOLIS

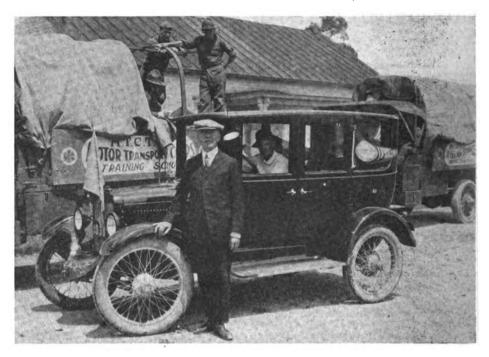
DETROIT, Sept. 4-D. McCall White, who is designing a car here, will manufacture it at Indianapolis. It has been reported that he has obtained the plant formerly occupied by the Stenotype concern at Indianapolis and will go there in a short time with complete plans for manufacture.

According to present information, White is backed by the Nash interests and intends to manufacture on an extensive scale, the first year's production being aimed at somewhere near 10.000 cars. They will probably sell for \$4500 or \$5000.

Among the members of White's organization are S. C. Howard, in charge of sales; Leo N. Burnett, advertising manager, and Edwin W. Goodwin, body engineer. These men were all formerly in similar positions in the Cadillac organization.

Southern Truck to Manufacture in · Greensboro

GREENSBORO, N. C., Sept. 5-The Southern Truck & Car Co. has let the contract for the construction of a manufacturing plant on the property opposite the fair grounds recently purchased.



The Overland Mystery Car

The photograph shows the new Overland Four, whose production date and specifications are yet to be announced, as it appeared in the transcontinental tour of the Motor Transport Corps. This car, one of three in the train, carried Dr. S. M. Johnson, official lecturer of the Lincoln Highway Association. The price of the car has been stated as \$845.

TRAYLOR WILL BUILD TRUCKS AND TRACTORS

ALLENTOWN, PA., Sept. 5-Plans have been announced here by which the Traylor Engineering Co. of this city will commence the manufacture of motor trucks, in addition to speeding up and expanding tractor production. Output on a large scale is expected soon, as the company has large facilities both here and at Cornwallis, Pa.

The announcement of the new plans were made at a dinner just given here and attended by the company executives. Both trucks and tractors will be of new design, the latter being a high-speed, light model improvement of the sample tractor that the company has been making.

The tractor was designed by Walter C. Guilder, formerly of the International Mack, the Garford and General Motors corporations. The truck was built by W. S. Stevenson, formerly sales manager of the International and Bethlehem motor companies. Both men now are on the staffs of the Traylor company.

CANADIAN PLANT OF OVERLAND ENLARGED

TORONTO, ONT., Sept. 4-A new manufacturing program, by which Overland cars will be completely built in Canada by Canadian workmen, has just been announced here by Willys-Overland, Ltd., the Canadian branch of the Toledo company. Announcement also was made that the Overland Four, the perfection of which previously has been given out, would be made here, as well as the other cars of the Overland company.

Extensive preparations have been under way here for some time for the building of cars for Canadian sales. The plant now has 280,000 sq. ft. of floor space and this will be increased soon by more than 100,000 sq. ft. of additional space. New equipment to a value of about \$1,000,000 has been purchased. The personnel of the Canadian organization has been greatly strengthened and T. A. Russell, president and general manager. has surrounded himself with a number of able executives and experts. The com pany is financed to a large extent by Canadian capital.

FRAUDULENT SALES OF U. S. CARS REPORTED

BATON ROUGE, LA., Sept. 4-The state highway commission and the police of all Louisiana cities have been asked to keep a sharp lookout for two men traveling through the South posing as salesmen for used cars for the United States government. These men accept deposits of amounts ranging from \$25 to \$100 on such cars and give what purports to be a receipt of the war department for the deposit.

Captain M. McMahon, surplus supply office, U. S. A., at New Orleans, has issued a statement that the government has no automobiles for sale, has offered none for sale and will offer none. The Louisiana-Mississippi Automotive Trades Association has asked all its members to keep a sharp lookout for these men and will furnish funds for their prosecution whenever apprehended.



COMING EVENTS

Races, Contests and Tours	Ottawa, OntOct. 14-16Tractor and Farm Machinery. Experimental and
Sheepshead Bay, N. Y. Sept. 20Speedway.	Booth Farms, Inter-Pro- vincial Plowing Match and Tractor Demonstration.
Treaton, N. JOct. 4Dirt track event. Cincinnati, OOct. 11Speedway. Denbury. ConnOct. 11 birt track event.	Ellensburg, WashOct. 15Tractor demonstration. W. L. Davis, County Agricultural Agent.
Los Angeles, Cal. Nov. 27 Ascot Speedway Race. Los Angeles, Cal. Dec. 29 Ascot Speedway Race. Paris, France Ully, 1920 Grand Prix Race. Sporting	Shows
Commission, Automobile Club of France.	
Meetings	Cincinnati, OSept. 13-20Ninth Annual, Music Hall. Cincinnati, di Automobile Dealers' Alsn., H. K. Shockley, Manager.
Buffalo, N. TSept. 11-12Annual Credit Manufacturers Convention, Motor & Accessory Mirs. Assn.,	Springfield, MassSept. 15-20Eastern States Exposition. J. O. Simpson, General Manager.
Hotel Lafayette. New Orleans, LaSept. 21-25Fifteenth annual convention of Associated Advertising	New York CitySept. 24-Oct. 3. New York Electrical Exposi- tion, Electric Cars, Trucks a n d Equipment, Grand
Clubs of the World. Philadelphia, PaSept. 22-24Annual Convention, National Association of Furchasing	Detroit, MichOct. 6-11Closed Cars per Condons
Agents, Bellevue-Swatiord. Sheffield, EngSept. 24-25	Assn., Arena Gardens. Pittsburgh, PaOct. 11-18 Fall Show. New York CityOct. 15Opening of International Farm Tractor & Imple-
ClevelandOct. 1-4 Eighth Annual Safety Congress of National Safety	ment Exchange, Grand Central Palace. Ft. Dodge, IaOctoberFall Motor Show, District
Council. Jackson, MissOct. 9-10Second Annual Convention, Louisiana-Mississippi Assn.	Fair Grounds. Chicago, Ill
Atlantic City, N. JOct. 14-17Twenty-fifth Annual Convention, Mariborough - Blenheim, National Hardware	New York CityNov. 16-23 Automobile Salon, Hotel Com-
Association of the United States.	New York, N. YJan. 3-10Grand Central Palace, National Automobile Cham-
Washington, D. COct. 29 First Annual Labor Conference provided by Peace Treaty.	ber of Commerce, S. A. Miles, Manager. New York CityJan. 3-10Eighth Coast Artillery Ar-
Chicago, Ill	mory, Commercial Cars and Accessories.
DetroitNov. 7-8Meeting of National Assn. of Motor Truck Sales Mgrs., Hetel Statler.	Chicago, IllJan. 24-31Collseum. Cars: Drexel Pavillon; Trucks, National Automobile Chamber of Commerce, S. A. Miles,
London, EngNovemberRoad Transport Congress and Exhibition. ClevelandDec. 3-5Ohio A u to mobile Trade	Manager. ChicagoJan. 24-31International Amphitheater.
Assn., annual convention. Louisville, KyFeb. 9-13Seventeenth Annual convention.	Commercial Cars and Accessories. Deadwood, S. DFebruaryAnnial S ho w, Deadwood Business Club. F. R. Bald-
tion American Road Build- ers' Assn.; Tenth American Good Roads Congress and	Rusiness Club. F. R. Bald- win, Mgr. Kansas City, MoFebruaryFifth Annual Tractor Show,
Eleventh National Good Roads Show. San Francisco, CalMay 15-20Seventh Annual Foreign	Kansas City Tractor Club, Guy H. Hall, Manager.
Trade Convention.	Wichita, KanFeb. 9-11Tractor and Farm Machinery, Forum, Wichita ry, Forum, Thresher-Tractor Club.
Foreign Shows	Louisville, KyFeb. 28-28Twelfth Annual Exhibition. Louisville Automobile
Toronto, CanAug. 23-Oct. 6Cars. Trucks and Tractors, Airplanes and Motor Boats in conjunction with Cana- dian National Exhibition.	Dealers' Asen., First Regi- ment Armory.
Ottawa. Ont	Automotive Shows at Fairs
tion Grounds. Paris, FranceOct. 15Grand l'alais - International Automobile Manufacturers	Milwaukee, WisSept. 8-13Milwaukee Automobile Dealers, Inc. Bart J. Ruddle. Manager,
Congress London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers &	Topeka, KanSept. 8-13Cars, Trucks and Tractors. Motor Hall and Machinery Fleit.
Trades. Christchurch, N. ZNovemberFirst National Motor. Glasgow, ScotlandJanuaryScottish Motor Exhibition.	Huron, S. DSept. 8-13Cars. Trucks. Tractors, Automotive Equipment. C. N. McIlvaine, Mgr.
Manchester, EngFebruaryNorth of England Motor Ex- hibition. Adelaide, AustraliaMarchAll Austral'an exhibition of	Helena, MontSept. 8-13Cars. Trucks and Tractors. Montana State Fair. Syracuse. N. YSept. 8-13Cars. Trucks and Tractors.
motor vehicles, airnlanes, engines and automotive equipment.	Douglas. WyoSept. 9-13Cars, Trucks and Tractors. Peorla, IIISept. 12-20Cars, Trucks and Tractors. Hutchinson, KanSept. 13-20Cars. Trucks and Tractors.
London, EngMarchMotor Roat Marine and Sta-	Sinux City, Ia
London, EngApril or MayCommercial Vehicles Exhibition, Olympia.	Springfield, MassSept. 15-20Cars. Trucks and Tractors. O. A. Nash, Asst. Gen. Manager.
Tractor Demonstrations	Rillings, Mont
Los Angeles, CalSeptemberRegional Tractor Demonstration under the auspices of the National Implement	County Fair. Memphia, TennSept. 20-27Cars. Trucks and Tractors. Oklahoma City, OklaSept. 20-27Cars. Trucks and Tractors J S. Malone, General Man-
& Vehicle Assn. Streator, IllSept. 9-12Northern Illinois Tractor & Truck Assn. W. S. Peter-	Pueblo, ColSept. 22-27Cars. Trucks and Tractors. J. L. Reaman, Manager.
man, Manager, Lincoln, EngSept. 24-27Society of Motor Mnfrs. & Traders, Ltd.	Salem, OreSept. 22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn
Lincoln, EngSept. 24-27Exhibition of Tractors and Acricultural Vehicles, in connection with the tractor	M. O. Wilkins, Mgr. Allentown, PaSept. 22-27Lehigh County Agricultural Assn.
trials.	(Continued on page 48)



CHANGES In the Trade

E. T. Peterson, who was formerly district sales manager of the Commercial Car Unit Co. of Philadelphia, has recently become manager of the Buffalo branch of the Pennsylvania Rubber Co.

Charles P. Grimes has been appointed development engineer of the Root & Van Dervoort Engineering Co. and will have charge of the dynamometer testing laboratory to be installed. Previously he has been with the Wheeler-Schebler Carburetor Co., Indianapolis, and with the National Motor Car & Vehicle Corp., Indianapolis, and during the war worked at McCook Field, Dayton, O., supervising the installation of electrical dynamometer and other testing equipment for the Liberty engine.

M. F. Rumery, district sales manager of the Oshkosh Motor Truck Mfg. Co., Oshkosh, Wis., will have charge of the new factory branch of the company opened at Omaha, Neb., at the corner of Harney and 20th streets. Rumery joined the sales force immediately upon receiving his discharge from the Naval Aviation Service. His territory includes Iowa, South Dakota, Nebraska and Northern Kansas.

Harry M. Glies has been appointed general superintendent of the South Philadelphia works of the Westinghouse Electric & Manufacturing Co. He succeeds the late Oscar Otto, who was killed in an automobile accident last month. For a number of years Giles has been superintendent of marine erection for the company.

Sidney Rosenberg is now covering the southeastern part of the United States for the E. G. Manufacturing Co., Inc., with headquarters in Nashville, Tenn.

George E. Sherman has been appointed district sales supervisor for the Four Wheel Drive Auto Co., Clintonville, Wis., for Minnesota, North and South Dakota, with headquarters in Minneapolis. Sherman started in the automobile business as advertising manager of the Holsman Automobile Co. ten years ago, and was later general sales manager for Mercury trucks. He recently left his position as district manager for the Maxwell Motor Co. at San Antonio, Tex., to accept the new position.

William H. Farrington has been appointed district sales manager for the Four Wheel Drive Auto Co., Clintonville, Wis., with headquarters at San Francisco. Farrington was formerly sales manager for the Maxwell Chalmers Motor Co. in Chicago, and previous to that was manager of the Walters Mfg. Co.

J. K. McKeough has been appointed manager of the truck division of the Nash Motors Co., Kenosha, Wis. He succeeds L. F. Collins, who resigned to join the Memphis-Nash Motor Co.

Arthur C. Brenckle, president of the Olymplan Car Co., 180 Fifth Street, Milwaukee, who was elected a director of the Olympian Motors Co., Pontiac, Mich., a year ago, has been called to the factory to take an executive post in the organization. He retains his interest in the Milwaukee business, which consists of the distribution of the Olympian and the Denby truck in Wisconsin. Frank C. Linter, vice-president, succeeds Mr. Brenckle as active manager.

SOUTH AFRICAN SEEKS AUTOMOTIVE AGENCIES



Godfrey W. Volkwyn

NEW YORK, Sept. 9-Godfrey W. Volkwyn, of Johannesburg, South Africa, formerly a wholesaler of automotive products in the South African country, with headquarters at Port Elizabeth, called at the office of Motor World recently before seeking interviews with manufacturers to represent them in his native land.

Volkwyn was in the automobile business for seventeen years at Port Eliza beth, but recently sold out his establishment. He is anxious now to obtain direct representation for manufacturers of American cars, trucks, tractors and accessories, for which he says there is an active market among South Africa's population of 1,250,000.

While in this country, Volkwyn is making his headquarters at the African Banking Corp., 60 Wall Street.

Major E. W. Cameron has been appointed general manager of the Reo Motor Car Co. of Canada, Ltd., with headquarters at St. Catherines, Ont., in charge of Reo distribution for the Dominion of Canada.

C. O. Corey, Rochester, N. Y., will have direct charge of all engineering operations at the Stanwood Rubber Co.'s plant at Newark, N. J., under the supervision of Edward Hutchens, vice-president and engineer of the concern. Corey was formerly with the Westinghouse-Church-Kerr Co., New York. as erecting engineer.

C. C. Newburn has been appointed assistant sales manager of the Parker Motor Truck Co., Milwaukee, Wis. Before his connection, nearly a year ago, with the Parker company he was connected with the sales department of Service, Diamond T, Corliss. Panhard and Traffic trucks during a period of about twelve years.

S. A. Taylor has been appointed foreign representative of the Garford Motor Truck Co., Lima, O. He is leaving on a trip to Africa and the Far East in the interests of the company.

P. A. Doyle, formerly general sales manager for the Tom Broeck Tire Co., St. Louis, has recently resigned to join the International India Rubber Corp., South Bend. Ind., as manager of its central district. His headquarters will be at Kansas City, Mo.

Charles S. Butler, formerly sales manager of the Carlson-Wenstrom Co., of Philadelphia, has been made sales manager of the Edward Wilkie Motors Co., distributers at Philadelphia of the Buick line. He at one time was advertising manager for Hess-Bright Mfg. Co.

Glean D. Mitchell, formerly chief engineer of the L. W. F. Engineering Co., College Point, L. I., has resigned to take up work with the Sinclair Refining Co., Chicago. He went with the Curtiss Aeroplane & Motor Co., Buffalo, in 1915, and has been in the airplane industry until the present

De Witt Page, president of the New Departure Mfg. Co., Bristol, Conn., was re-elected president of the Cycle Trades of America at a meeting in New York City.

Edwin A. Godley, general office manager of the Republic Motor Truck Co., Inc., has resigned and is succeeded by Glenn S. Crisp, chief accountant. J. V. Weeks, superintendent of the chassis department, has also resigned. His successor has not been named

H. F. Harris has been appointed general manager of the Bethlehem Motors Corp. Allentown, Pa. He has had previous engineering experience with the Everett. Studebaker, Maxwell and Overland organizations, and for the past two years has been with the Republic Motor Truck Co. as industrial engineer and later as general sales manager.

Elwood Haynes, president of the Haynes Automobile Co., Kokomo, Ind., has been named as a member of the Roosevelt Memorial Association.

COMING EVENTS

(Continued from page 47)

Waterloo, Iowa.......Sept. 22-28.....Automobile show, in connection with Waterloo Dairy Cattle Congress; Black Hawk County Motor Trades Bureau, G. V. Orr, Secretary

Kanses City, Kan......Sept. 24-Oet. 4. Cars, Trucks and Tractors.
Muskogee, Okla.....Sept. 29-Oct. 4. Cars, Trucks and Tractors.
Meridian, Miss....Sept. 29-Oct. 4. Cars and Tractors. A. H.
George, General Manager.
Chattanooga, Tenn...Sept. 29-Oct. 4. Chattanooga Auto Dealers'

Brockton, Mass......Sept. 30-Oct. 3..Cars,
Lancaster, Pa.....Sept. 30-Oct. 4..Lancaster Fair Assn.
Columbia, S. C.....Columbia Automobile Deal-Columbia, S. C... October Columbia Automobile Dealer's Assn.

Northampton, Mass... Oct. 1, 2, 3. Three-County Fair, S. E. Hickman, Mgr.

Dallas, Tex... Oct. 6-19. Cars. Trucks and Tractors. Texas State Fair.

Charleston, W. Va... Oct. 15-18. Tractor Demonstration, Kanawing, N. C... Oct. 20-25. Cars. Trucks and Tractors. Shreveport. La... Oct. 22-27. Cars. Trucks and Tractors. Columbia, S. C... Oct. 27-31. South Carolina State Fair Assn.

Jacksonville, Fia... Nov. 22-29. Flori's State Fair and Exposition. B. K. Hanafeerde Mgr.



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1120 1120 1645 OLYMPIAN 4.8 4-44 Conn A-Lite 112	1000 46 4-3{x4} Conn A-Live 112 32x3 005 OVERLAND	90 4-8415 Conn A-Lite 106 31x4 2685 3550 OWEN-MAGNETIC	3450 4200 W-42 6-4 x54 Boach Own 142 35x5 PACKARD	2900 3900 3.25 12-3 x5 Dolso Bijur (128 35x5	2000 6-56 6-34-55 Remy G & D 117 33x4 6-56 6-34-55 Remy Remy 127 34x44	2185 PATERSON 6-8144 Delco Delco 120 33x4 +2250	PEERLESS 8-31-5 A.Kent A-Lite 125 34x41 556	### 142 July With 142 July 38 6-4 x5 Delco With 134 34x4	PILOT 6-45 6-3½15 Delco Delco 120 32x4	PREMIER 6-3 6-3 beloo Deloo 126 32x44	6-31-15 N.E. N.E. 120 33x4	4-4 x6 Bosch Weths 131 32x4}	6-3}x5} Bosch Bijur 128 32x4	6-2jr4j Remy Wagner 112 32x3j	Delco 118 32x4	Remy 112 32z4 Remy 108 30z34	H4 15 Bosc Weths 138 3315	13}25 Dixie Wethe 127 34x4	H z5 130 35z4	-3{x5} Wethe Wethe 125 34x4}	F3fx49 A-Lite A-Lite 122 32x4 R -34x6 Remy Wagner 112 32x39	Remy Wagner 119 32x4 Remy Wagner 126 33x4	Delco Remy (120 82x4)	Bijur 118 32x4 t Bijur 115 32x4	Delce Delco 125 32x44 Delco Delco 118 33x4	Jonn A-Lite 121 34x44	4x54 Bosch Bijur 138 35x5 4x51 Bosch Bijur 132 35x5 44-nassenger, 43-nassenger,
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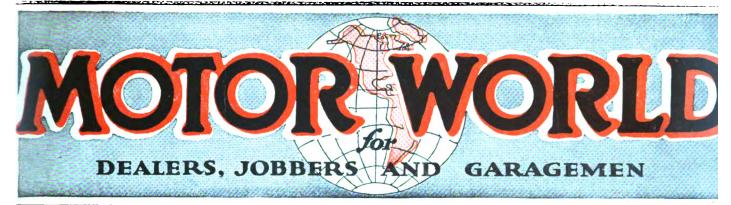
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Volume LX Number 12 PUBLISHED WEEKLY AT 239 WEST 39th STREET NEW YORK, SEPTEMBER 17, 1919

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Simplicity

The Tractor that Meets the Farmers' Needs

There are fine profits for dealers who sell the Simplicity 3-plow, kerosene burning tractor.

The Simplicity is not only everywhere providing dependable power for all average farm drawbar and belt work; it has distinct sales winning advantages of economy and ease of operation that put it in a class by

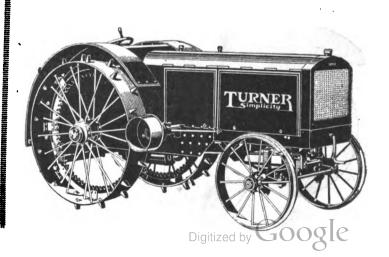
Distributors are sold on the Simplicity and owners stay sold.

The widespread popularity of the Simplicity clearly indicates that it will be a leader in the big tractor sales era ahead.

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August 29, 1919.

Motor World, 231 West 39th St., New York City.

Gentlemen:

Attention Mr. Chas. B. Shanks, Mgr.

Last year after your WINTER BUSINESS number came out we felt a decidedly optimistic tendency among the garages and a most decided impetus in business, and we give your magazine much credit. We hope that this year's number will be even better and to this end we feel that the manufacturers of automobile supplies, and especially equipment, should lend you all the assistance possible, and I can assure you, as a jobber, that our traveling men take a special delight in spreading the merits of Motor World for our section of the country and they of their own volition each fall put on a campaign to see how many members they can get as they say whenever they get a member to Motor World the chances are he will soon become a better garage man.

Your WINTER BUSINESS issue is to many garages what the Literary Digest is to a busy man, a resume of the automobile business in a condensed form, and a good many of our customers use this copy as an encyclopedia until a new one is out, and we feel that we should support you in every possible manner so that no effort will be spared in making this coming number the best ever.

Yours for putting the garage business on a higher plane.

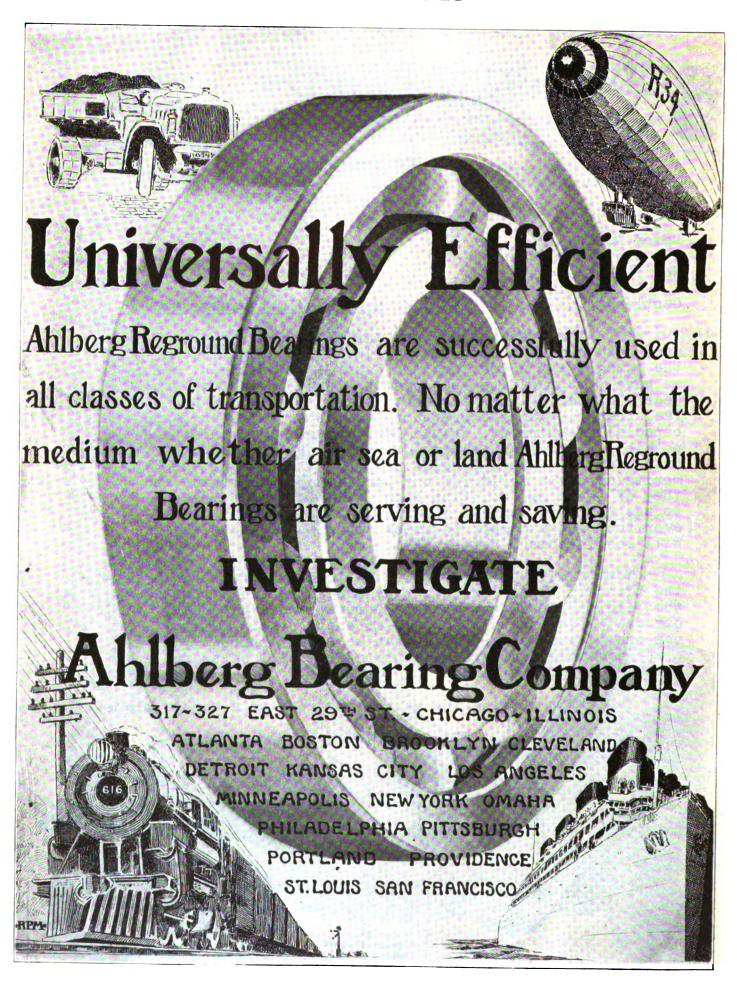
THE G. NORMAN BAUGHMAN COMPANY:

Pres. & Gen'l Mgr.

GNB*FVD

MEMBER WILLIAM In the above reproduced letter is expressed a sentiment that extends pretty generally throughout the entire trade—dealers, jobbers and garage owners.

Motor World's annual Winter Business number (to be published on October 15) will be a real force for constructive helpfulness to the industry as well as the trade. If extra copies are desired they should be ordered at once, C. B. S.

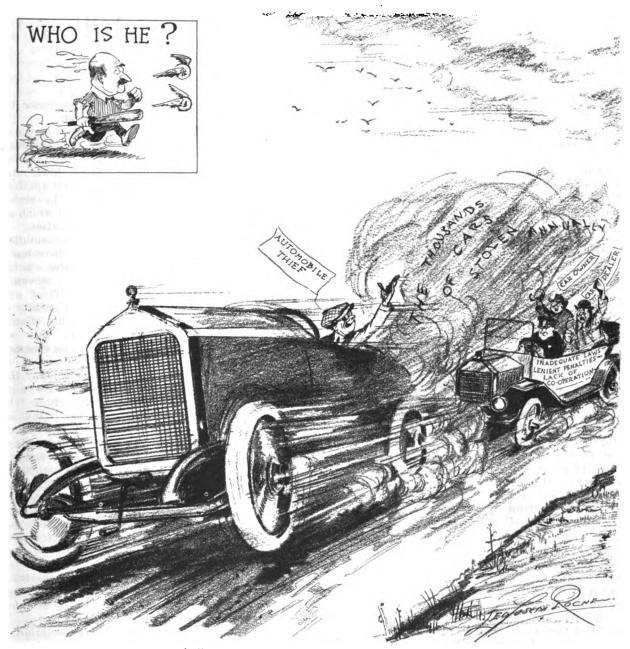


Vol LX

New York, U. S. A., Wednesday, September 17, 1919

No. 19

TAKING HIS DUST



A Better Car Is Needed to Overtake Him

TIME TO SQUELCH THE CAR THIEF

With N.A.D.A. Pointing the Way, the Day Is at Hand When Dealers Must Bring Pressure Upon Lawmakers, Prosecutors and Judges to Curb Countrywide Traffic in Stolen Automobiles— What Some Localities Are Doing; What YOU Can Do

THE time is ripe to squelch motor car thieving.
And the automobile dealer, who is looked up to
in his community as an authority on all things automotive, must take the lead in crystallizing public sentiment—

rounds with threats of loss and inconvenience the ordinary operation of automotive apparatus.

It is true that car thieving is encouraged by the carelessness of owners, but this does not excuse inadequate laws.

1. To demand state laws imposing heavy penalties upon car thieves.

2. To insist upon prosecutions which will result in convictions and maximum penalties, and

3. To set up uniform federal legislation so that the thief cannot dodge the car protective laws of one state by driving his loot into another whose statutes are inadequate to bring him to bar.

The car thief cannot be suppressed as the horse thief was a generation or two ago-with a hempen rope figuring prominently in the reform. Present-day civilization is too refined for that sort of procedure, but prison doors still yawn for the transgressor, and prison sentences, without the alternative of fines, will stop thieving, if applied generally, not in a few scattered states, but throughout the country.

When a car is stolen, the owner, rather than a dealer, usually is the loser, but the

consequences of the crime, its effect becoming cumulative through thousands of thefts throughout the country, strikes vitally at the stability of the indust. Neither manufacturer nor dealer can ignore a situatio, which sur-

READ THIS

It tells why the dealer cannot pass up the car thieving problem as unimportant

THE National Automobile Dealers' Association, clearing house for dealers' organizations throughout the United States, has gone to the mat with the car stealing evil with a bill to make the theft of automobiles a felony under the federal Laws, punishable by ten years' imprisonment.

The proposed act, intended to prevent car thieves from taking motor vehicles out of states where this sort of crime is actively prosecuted and disposing of them in states which pay little attention to the practice, has been introduced in the lower house by Representatives L. C. Dyer and C. A. Newton of St. Louis.

The m daure, now before the House Judiciary Committe deserves the study and the support of every dealer in the country. In order that it may be thoroughly understood, the bill will be printed in next week's Motor World.

half-hearted enforcement of what laws there are, and general apathy toward reducing the stolen automobile loss which exists in many localities. Associations of automobile owners here and there have shown commendable activity in supporting movements to catch the thief and make him pay a penalty in keeping with his offense. But efforts of this sort are likely to be spasmodic and scattered.

The dealer, the only factor in the automobile industry whose relation to the owner is that of direct contact, a relationship which seldom ends with the sale of a car and often continues throughout its ownership, must save the day. If he will say the word. often enough and loud enough so that no legislator, no police official, no prosecutor, no judge can misinterpret its meaning, or the earnestness with which it is said, the days of the automobile thief will be numbered.

The National Automobile Dealers' Association is pointing the way. It has caused to be introduced in Congress a bill aimed at federal suppression of car thieving. The association has built up a prestige which counts with the

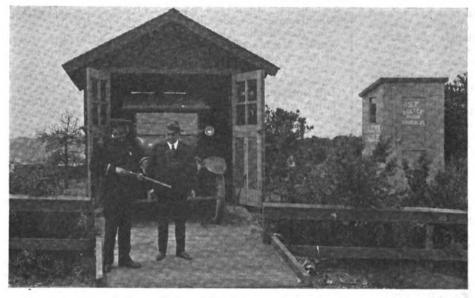
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national legislators. But it is, after all, but the creature of its members—the men who deal in automobiles throughout the length and breadth of the land—and their influence, brought to bear upon the Senators and Representatives from the districts where they do business, is essential as a supplement to that of the national association.

Without a federal law some states are trafficking grounds for stolen automobiles. Thieves, finding disposal of cars impossible in states with progressive laws and active enforcing authorities, simply drive their loot to one of these "easy" states and turn their crimes into cash. A federal law, making possible conviction of the automobile thief WHEREVER HE IS CAUGHT, would put a quick stop to this practice.

To curb thefts within the states, enactment of statutes making the crime a felony is the first step necessary, but

this would be an empty gesture unless public opinion was created, and kept active, for strict enforcement of the law. If police officials, through lack of public interest and support, become lax in detection of car thievery, if prosecuting officials lose interest in obtaining convictions, if judges, without constant indication of the popular demand for penalties severe enough to act as deterring examples, lapse into leniency, the laws might as well be written off the



THEY CHASE CAR THIEVES WITH SHOTGUNS IN CALIFORNIA

In the picture is shown the first of the southern California automobile thiefcatching stations in San Francisco County. Chief of Police E. A. White, of San Francisco, and C. D. Watkins, manager of the California State Automobile Association, are seen inspecting the new station and its equipment

statute books. They are dead letters, anyway. Obviously, automobile dealers, who suffer, directly or

indirectly, through the majority of thefts, are the logical agencies to keep alive the sentiment that will make it too hot for thieves in their communities, and their activities, if properly directed, will enlist the co-operation of organizations of car owners, chambers of commerce, and, what is most important, city, town, county and state officials.

Letters received by MOTOR WORLD in the course of an investigation of car thievery throughout the country and in Canada show the seriousness with which both dealers and owners view the situation. Another evidence that the problem is one which cannot long be left unsolved is the report of the National Automobile Dealers' Association showing 28.644 motor cars stolen in 1918 in only twentyone Western and mid-Western cities, with recoveries of the vehicles, usually at considerable expense, averaging far below 75 per cent. The N. A. D. A. also reports increases in automobile insurance rates in seven Western cities, these running from \$2.50 to \$47.50 per vehicle in one instance, while the average advance was upward of 2000 per cent in five years.

In making public its figures the N. A. D. A. urged that dealers pay greater attention to the prosecution of car thieves, a line of activity which is detailed as having been effectively followed in several localities.

MOTOR WORLD'S investigation finds dealers throughout the country generally opposed to licensing used car dealers, under high license fees, as a means of checking the movement of cars after they have once passed from the trade into private hands. Opposition has developed, as well, to extensive police supervision of used car sales, one dealer pointing out that it is the man outside the automobile business who steals cars or aids the thief in disposing of his loot. Equally emphatic is the declaration, in most cases, that licensing should not apply to new car merchants.

In Pennsylvania, whose new motor vehicle law, with several important provisions aimed at thieving has become effective, some sentiment is found against the requirement of licenses for used car dealers and the intricate system of checking and reporting cars imposed upon garagemen under the act. Yet the Philadelphia Accessories Busi-

> ness Association advocates tion of the Pennsylvania idea by other states as a means of suppressing the thief and favors licensing not only used dealers, but car new car dealers who handle used cars on trade-ins.

> Dealers in California generally show faith in their state's antitheft law, and in measures taken. particularly in Franthe San cisco district, to enforce it.

> In several states laws or practices require furnishing an abstract of title

with each car sold, with registration of transfers with a public officer in some instances, the idea being to provide a complete record of the progressive ownership of each vehicle. In others it is made a misdemeanor to dismantle a car, thus destroying the means of identifying it, except after notice to the police authorities. In general, there is a disposition to urge multiplication of the use of identifying numbers by manufacturers of cars and parts, with the idea of simplifying detection and conviction of thieving.

From all sections of the country comes support of a movement for inter-city and inter-state co-operation between dealers and public officials, for an adequate federal law, for effective state laws and for the enforcement of both, so that there will be left nowhere in the United States a "happy hunting ground" for the automobile thief.

The tren gof sentiment for elimination of the thieving evil is summarized below from opinions expressed in many localities:

CALIFORNIA

Persistent thefts of automobiles in this state, particularly in the southern section of the commonwealth, have brought about very general co-operation on the part of automobile dealers and automobile owners' associations with state and local authorities. The result has been a noticeable decrease in the number of unrecovered stolen

cars, yet the record stands at 184 for 1919 up to date. The total stolen was, of course, much larger, but was reduced through the activities of the police and the assisting associations.

In San Francisco County the police, assisted by the California State Automobile Association, have established an automobile thief catching station on the principal highways. From these stations police officers, armed with sawed-off shot-guns and equipped with automobiles and motorcycles, operate day and night. The stations are connected direct with the central police stations by telephone. As soon as an automobile theft is reported, the number of the car and other identifying data are flashed to the substation guarding the roads of egress and ingress into San Francisco. All machines of the make stolen are stopped and inspected, and similar precautions are taken at the ferries. If the machines are stolen at night, an electric sign bearing the word "Stop" is hung over the road, and all cars inspected before being allowed to proceed.

This work is conducted under the California state motor vehicle act, a comprehensive law, which Chester N. Weaver, President of the Motor Car Dealers' Association of San Francisco, declares has been instrumental in holding down the

number of thefts.

A. V. Storer, Secretary of the Citrus Belt Auto Trade Association of Pomona, says that automobile trade associations throughout the state, through the use of circulars and telegrams, and automobile clubs, by employing detectives and offering rewards for apprehension of thieves, have checked the practice to some extent. Car registration, and a checking of it by the authorities also has been effective. Imposition of penalties. when judges have not been disposed to be over-lenient, also has been a deterrent. Storer declares the only way to stop stealing, in his opinion, is to penalize it, and he quotes from the California law to show how it is done in that state:

"It shall be unlawful for any person to drive or operate, or cause to be driven or operated, upon the public highway any motor vehicle not his own, whether with or without intent to steal the same. in the absence of the owner thereof without such owner's consent; provided, such consent shall not be implied in any instance because of the fact that upon a previous occasion such owner had consented to the use of the same or another motor vehicle by such person. Any person violating any of the provisions of this section shall be punished by imprisonment in the state prison for not less than one year nor more than five years."

(Notice it says "with or without intent to steal," making improper possession prima facie evidence of act of stealing. Also allows no alternative of fine OR imprisonment; prison only.)

"Before any person, firm or corporation, shall wreck, dismantle or disassemble any motor vehicle, or substantially alter the form thereof, such person, firm or corporation shall give notice in writing upon forms to be furnished by the Motor Vehicle Department of the intention so to do to the chief of police or marshal of the city or town in which such work is to be done or if such work is to be done outside an incorporated city or town, notice shall be given to the sheriff of the county in which such work is to be done."

(Naturally, trade associations will keep this before their members in the repair trades both to avoid their becoming involved—by reason of careless-

THE Big Five of the automotive industry—the National Automobile Dealers' Association, National Automobile Chamber of Commerce, Motor and Accessory Manufacturers' Association, American Automobile Association, and Trailer Manufacturers' Association of America—got behind the federal anti-car thieving bill at a recent conference in New York. They will work for the N. A. D. A.'s ambition to make the bill into law before New Year's.

The campaign needs your help. Get after your Senator and Representative to support the measure.

ness or neglect to so notify—with the law, and to assist in detection of improper or "criminal" dismantling and wrecking schemes.)

PENNSYLVANIA

Like California, Pennsylvania has enacted a new motor vehicle law which contains drastic provisions intended to curb car thieving. The act, which was put into effect September 15, provides a maximum fine of \$5,000 or a maximum prison sentence of ten years for the theft of a motor car. The law also provides a \$500 fine for effacing car numbers, licenses for used car dealers at \$100 a year, and requires garagemen to keep a record of all cars coming into their establishments. All second-hand cars bought or sold are registered with the State Highway Department and the City Police Department. The language of the law, as applying to the garageman, is as follows:

"The proprietor of every public garage and motor vehicle repairshop shall have a record to be kept after the manner prescribed by the State Highway Commission of the name of any and all persons owning or having charge of any motor vehicle left for repair at any such



garage or motor vehicle repairshop, together with the make, manufacturers' number, name of state of registration, and the registration number of such motor vehicles. Such records shall be kept in ink or indelible pencil, and shall be open for the inspection of police officers or other proper authorities. Such records shall be retained and be available for a period of one year after entry, but not thereafter.

"The garageman shall also immediately notify the local authorities and the State Highway Commissioner, of any such motor vehicle whereon the manufacturer's number has apparently been altered or removed."

The Automobile Accessories Business Association of Philadelphia and the Harrisburg Motor Dealers' Association believe that the new Pennsylvania law will curb the motor thief, and urge that other states make the stealing of motor cars, or having in one's possession a stolen car, a felony, with a substantial penalty, thus preventing the Pennsylvania thief from getting rid of his stolen property in another state. The new law has met with some criticism from garagemen, who declare that on account of the work they are compelled to do they are virtually made a police department and a detective agency. They feel that making detailed records of cars passing in and out of garages imposes an unfair burden of work on the garageman.

NEW YORK

Reports from several cities in the Empire State indicate that watchfulness of police authorities has held car thieving down to a reasonable minimum.

The automobile theft loss ratio has been such a serious factor in automobile insurance in New York City that Frank Oliver, chief clerk of the City Magistrate's Court, has suggested formation of an exchange for the detection of stolen cars offered for insurance. About 300 cars a month are stolen in New York, according to Oliver, who suggests that an exchange might accomplish the following results:

1—The registration of all automobiles which have been insured, giving engine number, type of car, and complete identification.

2—To be the focus point of the report in the theft of automobiles.

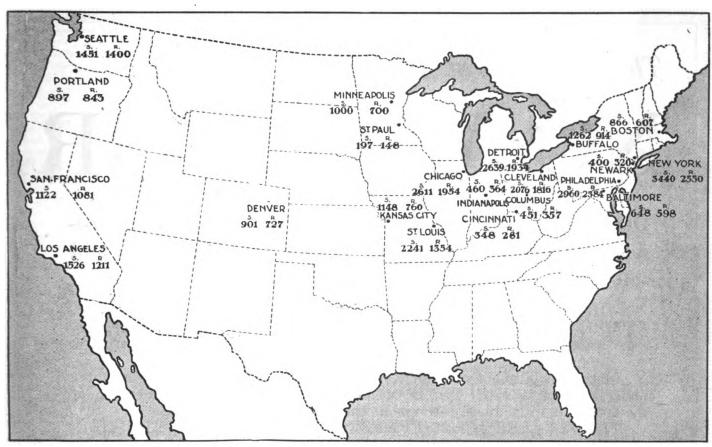
3—That all insurance companies to which application is made for insurance apply first to this bureau to find the previous record of the insurance on the car.

4—That such bureaus subscribe to the departments of the various state governments for a complete list of all automobile license numbers, owners, etc., so that they can aid in tracing stolen cars.

KENTUCKY

Car stealing has aroused business men of Louisville to such an extent that twenty-eight automobile dealers, tire dealers and insurance companies recently joined in a week's campaign of co-operative advertising in the news-





Thieves made off with 28,644 cars, valued at \$27,000,000, in twenty-one cities which kept records of thefts during 1918. Note the prevalence of the crime in communities near state borders, a condition which the proposed federal law would eliminate

papers. Readers of the newspapers were asked to communicate with their representatives in Congress, and to urge their serious consideration of enactment of a Federal law to stop car stealing. The Louisville advertisement read as follows:

STOP THE AUTO THIEF Give Us a Federal Law with Teeth In It.

Something must be done to halt or stop the theft of motor cars and equipment. It is costing millions of dollars and a large number of men to trace stolen automobiles. It increases the first cost and increases the yearly maintenance cost of motor cars. Insurance premiums have been placed at excessive figures because of such stealing, and the future indicates that unless some protective measure with teeth in it appears they will still further increase. Motor car thieves are occupying too much time and causing too much worry for motor owners. It is teaching crime, because it has been an easy matter to steal and dispose of a motor car with punishment prospects light even in extreme cases.

Close to a million dollars, if not in excess of that sum, is spent yearly in tracing stolen motor cars; a large number of men are engaged in this business who could be doing something more profitable for their community.

MICHIGAN

Dealers in Michigan favor strict laws and adequate penalties, with action by

the judicial authorities to impose these penalties in the maximum in cases of conviction, as the most effective means of putting a stop to car thieving, which is carried on on a large scale in Michigan, particularly in the Detroit district. G. O. Simons, President of the Simons Sales Co., Detroit, opposes legislation for supervision of dealing in cars, and says that the remedy is to create public sentiment for severe punishment of offenders. "Under present conditions," he says, "it seems to be easier to steal an automobile and get away with it on a suspended sentence than to steal a loaf of bread." Dealers' associations, newspapers and trade journals, he says, must ridicule the lenient sentences imposed by some judges.

The Automobile Business Association of Grand Rapids reports car thieving at a minimum in that section of the country, and favors propaganda to create sentiment for more severe punishment of offenders. Police who spend their time apprehending car thieves only to have these men released on light sentences in the court, soon become discouraged, according to the association.

The association does not approve of high priced licenses for dealers, believing it would only add to their burden without helping the general situation. It favors the furnishing of abstract titles with the sale of a car.

WISCONSIN

The Milwaukee Automobile Dealers' Association performed efficient service in

reducing car thefts in its territory. Thieving was going on almost unchecked up to two years ago, when the association offered a reward of \$50 for information that would lead to the arrest and conviction of thieves in Wisconsin. This stimulated police, sheriffs and marshals to catch the thieves. In less than a year the association paid out \$1,950 for the arrest and conviction of thieves. Through its attorneys the association took a dominant part in prosecutions, and as a result of the campaign the judges in Wisconsin have continued to sentence automobile thieves, in most cases imposing the maximum penalty, though the association has since withdrawn its reward. The association now contents itself, having created a sentiment for severe punishment of car thieves, with watching the progress of prosecutions, and where an indication of leniency of influential activities in behalf of the thieves is evident, its attorney steps in and insists upon adequate punishment.

CANADA

From the Manitoba Motor League comes word of activities in that province to curb automobile thieves. It is stated that an active police patrol is maintained, with inspection of suspected stolen cars as one of the features. The league urges that certificates of title be given with the sale of all cars, and that no deal be made without transfer title deeds, arguing that this would simplify the work of theft detection.

The Trade Can Practise

NO MORE TIRE

Dealers' recourse until manufacturers remove unbusinesslike policy is to forget all about the guarantee and sell tires on their merits only

IRE manufacturers who merchandise their products on a mileage guarantee basis will eliminate the practice—and the day of elimination is not far distant.

In the meantime tire dealers, principal sufferers under the guarantee policy, can sell tires ON THEIR MERITS ONLY, as progressive members of the trade here and there throughout the country are now doing.

THE DEALER'S RELIEF FROM AN UNBUSINESŠLIKE MER-

CHANDISING RULE IS TO FORGET IT.

He can tell his customers that he sells a good tire, that his reputation as a dealer and the maker's as a manufacturer stand behind it. But he need not mention mileage.

He can discourage customers who bring up the subject of mileage by showing no interest in it, basing sales talks and propaganda on performances of the past rather than promises for the future as relating to the tire he sells.

The movement in the manufacturing branch of the industry toward dropping the guarantee is moving toward definite action. Meantime manufacturers and dealers are writing to Motor World, and dealers are writing to the makers of the tires they sell—and dealer sentiment, unanimously, is for immediate abandonment of the guarantee.

Co-Operative Action Against Guarantee

In Rockford, Ill., the other day, ten tire dealers got together and signed the following statement:

Below you find the signatures of different concerns in our city who are in the tire business

We have noticed what the Motor World is doing in order to abolish the foolish mileage guarantee on tires. We heartily endorse their idea, which in our minds is more than splendid. The tire "game" has been known as a "game" so long it is time it was made a business.

Tires as well as other commodities can be sold on their merits as the sales argument a whole lot better than on a mileage guarantee, because the average consumer does not understand what a mileage guarantee really is.

We hope this idea gets the co-operation from

every tire dealer and manufacturer and becomes a real fact.

RELIABLE TIRE & VULCANIZING CO.
MOTOR SUPPLY CO.
ARTHUR L. JOHNSON.
ARNOLD AUTO SUPPLY CO.
ROCKFORD TIRE & VULCANIZING CO.
REO MOTOR CAR CO.
W. B. TAYLOR AUTO CO.
JOSLYN AUTO CO.
KEN-DOW SERVICE.
THOS. A. KEARNS.

No Guarantee on Star

The Star Rubber Co., Akron, Ohio, writes: One of the healthiest signs of the times is the growing tendency among tire manufacturers to discontinue their mileage guarantees. Real



GUARANTEES

Definite Mileage Guarantee Is Useless

By F. C. Milhof, General Sales Manager, Miller Rubber Co.

The guarantee that a tire is built to run a definite number of miles is not only confusing to the consumer, but it is a reflection on the tire itself. No one would guarantee that a pair of rubbers would wear a certain number of miles or that a pencil eraser would last a certain number of erasings—yet the same principle applies in those cases as with tires as of its and a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. Even now near all hiberto unchasers of a certain mileage, established guarantees. A company that for years has been known to turn out only high grade products can be depended upon to sustain its reputation at all costs.

Instead of a definite mileage guarantee figures. A company that for years has been known to turn out only high grade products can be depended upon to sustain its reputation.

Definite mileage guarantees too frequently lead to a final difference of opinion between the consumer and the tire manufacturer or dealer, when adjustments are sought. Sometimes those differences are ironed out, but more often the customer thinks he haan't been treated exactly right. And, that is the principal evil of the whole business. Satisfied in the unchase of the purpose of the short of the sh

Precarious life of a tire, no matter how good it may be made, and regardless of the quality of the materials used in its construction, we have come to look upon the guaranteeing of milesga as a necessary evil.

**We have been stabilished by use the editorials and other material used to the editorials and other materia to work world pertaining to the marketing of the materials used to the editorials and other materia in Motor World pertaining to the marketing of the materials used to the editorials and other materia in Motor World pertaining to the marketing of the material used to the editorials and other materia in Motor World pertaining to the marketing of the material world to the editorials and other materia in Motor World pertaining to the marketing of the

NO MORE TIRE GUARANTEES

There Is No Competition in Quality

(From a latter from the Swage Tree Sales Co., Des Meines, Ioux, to its dealers)

Relative to the recent additional mileage guarantee offered by some of the tire companies—

If this matter comes up with you, as it probably will be brought forward by certain parties, call their attention to the following facts:

The better and larger tire manufacturers are not at all in favor of the move.

It means that the tire business of the dealer affected by the increased mileage will resolve itself into an adjustment business almost entirely, whereas otherwise a customer who has received good and satisfactory service of perhaps 4000 or more miles is in the market for a new tire. Owing to the increased mileage guarantee that same customer is now in line for the dealer's services in getting him an adjustment. The dealer takes off the tire, ships it in, express charges prepaid, writes one or more letters, puts a new adjustment tire on, loses the legitimate sale he is entitled to and gets, what? Only the thought of the customer that someone is an easy mark.

Don't Guarantees! Just Make Good Onnool Barringer Co., Charlotte, N. C.:

The writer is very much interested in your remarks in regard to tire mileage synariaes.

**Only a few days are a salesman came into my store and offered me a 30 x 3% tire that his household have a patent medicine, at the ora automobile. Any first-class concern will make its product good should it not come up to specifications, and we have a least off the sale in regard to the sale of the sa

EASTERN FAIRS SHOW

Automotive Products to Thousands of Town and Country Prospects— Exhibits at Syracuse and Byberry

SYRACUSE, N. Y., Sept. 11—The New York State Fair, held a few miles from this city this week, has broken all records for attendance and size. The attractions staged by the management were far and away the best ever seen in this part of the country.

Automotive vehicles of all kinds were represented on a scale never before attempted, and practically all the well known cars, trucks, tractors and implements had pretentious exhibits.

The great point to be observed was that the people who come to the fair were more interested in modern farm machinery, which includes everything that will lessen work on the farm, than in the freaks on the midway. The barkers for the snake charmers and fat women had a lot of trouble getting an audience of half a dozen, but ropes and railings had to be put up to keep the crowds away from the power operated churns, washing machines, mechanical milkers, trucks, trailers and automobiles. This may seem like a pretty strong statement, but it is the truth.

The day has gone by when you can pick out the farmers by the straw in their whiskers. They are rapidly becoming business men. They come in their automobiles and they bring the families along. The farmers look at the stock, at the prize winning vegetables and then turn their attention to the machinery section. They will hang around the tractor demonstrations and look at the trucks and the mechanical milkers and all the things that will help them get through their work with more ease and more profit. While Mr. Farmer is sizing these propositions up, the gentler sex is looking over the Broadway styles, the latest grand piano, the washing machines, the electric household appliances and the other modern devices for giving more pleasure and less strenuous work for the hand that rocks the cradle.

This fair was an exposition of everything for the farmer and the city man, but particularly for the farmer. There were horse races, animal exhibits, vegetable exhibits, fruits, dairy products, poultry, etc. The prize attraction was the dare-devil aeroplane stunts of Lieutenant Locklear, who jumped from one plane to another in midair, hanging by his knees and defying Providence in other ways.

The importance of the fair can well be judged by the fact that the attendance was over 40,000 the first day, which was twice as great as on any other previous opening day. True, a special effort was made to make this Syracuse Day, and many of the stores and shops shut down at noon Monday so that the employees could get out to the fair, but the succeeding days pulled enormous crowds.

In spite of this unprecedented attendance, everything went off as smoothly as clockwork. The two railroads and the trolley line accommodated the visitors with facility. Trains were run on both roads at ten minute intervals, and trains of three trolleys were sent out frequently. In addition to this, thousands of automobiles came out over the magnificent concrete highway that has been constructed from the city to the grounds.

Comprehensive Automotive Exhibit

Altogether seventy different makes of cars, trucks, tractors, implements and accessories made their appearance at the fair. A demonstration was arranged for the tractors and they plowed on Tuesday, Wednesday and Thursday before a very satisfactory crowd of spectators.

No attempt was made to feature competition either as to time or fuel consumption, although the size of the plot assigned to each tractor was in proportion to the number of plows pulled. The plots averaged a little less than an acre. Fred G. Behrends, state superintendent of farm machinery, who has managed the New York State tractor demonstrations and schools in the past few years, was in charge of the agricultural machinery. Altogether twenty tractors participated.

The cars and tractors were exhibited in tents, which in many cases were tastefully arranged. Many engines were kept running at low speed, and the smooth running and quietness was a feature that attracted attention, this being of necessity absent at the regular automobile shows. Photographs, posters and other advertising matter added to the attractiveness of the tents.

Tractors and implements were also housed in tents and in one case a wooden grade was built and the tractor climbed an incline of nearly 40 degress at intervals. Tractors were also belted up to all kinds of farm machinery, corn was fad into silage cutters and up through the blowers. Hay was baled, wood cut, and in fact all the chores that the trac-

What You Can Get Out of a Fair

1-More prospects

2—Publicity

3-Wider acquaintance

- 4—Sell cars, trucks, tractors and accessories
- 5-Follow up the leads, then
- 6—Get more business

Room for Improvement

1-Talk to all visitors

- 2—Find out whether they are interested
- 3—If so, secure names and addresses
- 4—Talk sales at once if the occasion demands
- 5—If best, defer sales talk till a later visit
- 6—Invite callers to visit your salesroom
- 7-Apply your talk to his needs

tor is capable of performing were shown actually being performed.

One of the classes of exhibits that attracted as much attention as any other was the electric farm lighing system. Quite a number were there and they had everything hooked up to them that electric current would run.

Merchandising Needs More Pep

Merchandising in the automotive field at the fair was not what it should have been. In the midst of the many thousands of visitors, many of them potential prospects, salesmen and sales managers allowed people to go through the tents, examine the machines and in many cases pick up catalogs without so much as wishing them good lay or asking in what way they could be of service.

This was little short of criminal negligence.

If the sales methods of the rattlesnake oil venders had been applied in a mild and modified form to the automotive exhibits, there is no question but there would have been more dofing. Not that the line of talk handed out by fakers can be used to advantage in such a dignified business as the automotive business, but there should be more interest, more "pep" and more "jazz" put into the selling.

Salesmen must be trained to approach visitors with courtesy and with a smile. But they must approach them. If the dealer spends his money to exhibit at the fair or anywhere else, he does so with the expectation of either selling a cer-

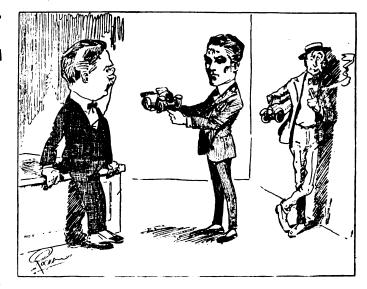
(Continued on page 35)



FIT TO FIGHT

Being a Bit of a Dissertation on That Little Old Physical Condition Thing

By Ray W. Sherman



TOMMY TRUMBULL, ordinarily the most amiable of young men, had not been batting in his usual form to-day. Things seemed to break wrong all the way through. If he started a thing it wouldn't finish—and if it did finish it wasn't up to par.

Wherefore, about half after three of a muggy afternoon he devoted a few seconds to cursing the weather and dumped numerous jobs in his desk to be finished to-morrow. Meantime he devoted his time to reading a trade paper which Friend Burleson had delivered a day ahead of time, and Tommy determined he would beat it for home soon.

As he thumbed the pages he ran across a story which was headed "Fit to Fight," and he read it because he felt like fighting with somebody and hoped the story would show him where he could locate a suitable antagonist.

But he hadn't read far before he began to think, and the more he read the more he thought. Finally he came to the conclusion that he was all wrong and that he had better take the afternoon off and play golf or something else as his greatest possible service to C. J. Reilly, Inc., which paid his salary—for the story indicated to Tommy that the trouble with everything was not with everything, but with Tommy.

Lacked Snap

As he looked back over recent months a bit he could see that he had been losing his fitness. He didn't have the snap he used to have—and the story showed him the reason why. There had been a time when he used to pay attention to that little old physical condition thing, but of late he had been neglecting it sadly—and he was getting the results.

"Reilly," he turned to the boss, "do you take exercises?"

"Vocal or musical?"

"I guess both of us do quite a lot of vocal exercises. I mean physical."

"Oh, sure!" said Reilly. "I have for years. I didn't use to, but I found I had to. I was slipping down hill and getting into the old man's class. I believe I'd be ten years older right now

if I hadn't caught myself in time and taken up exercises."

"Well, that's what I've got to do," explained Tommy. "I've just found what ails me. Everything's been going wrong for a long time. First I laid it to the weather—and I presume the weather did have something to do with it, but it was only a local cause. The big, deepdown cause was my physical condition, all of which balled up my mental condition and it has hurt me a lot. It has affected my disposition, even, and I think the estimable Mrs. Trumbull will bear me out in this last statement. I've sure been a grouch."

"There's nothing to it, Tommy," said Reilly. "If more people would pay a bit more attention to their physical condition they would be much better off—and most of them would work better, feel better and make more money."

"I guess that's true." And Tommy drummed with his fingers on the desk.

"I know it's true!" Reilly declared. "I never made any real money in my life until I began to pay attention to the leaks of my business—and about the biggest leak I ever discovered was in my physical condition. I found that instead of building for my old age I was doing a one-sided job. I was building financial assets for my later years but wasn't providing a physical reserve. If I had gone on as I was then operating I would probably have made quite a bit of money, but about the time I was ready to enjoy it I would have been spending a lot of it with Keeney, the undertaker, and Smith, the florist.

and Smith, the florist.

"I'll tell the world, Tommy, that the greatest benefit that could be brought to humanity would be attention to physical condition. There was a time when folks didn't even have bathtubs or anything else in that category. What they did for exercise and a bath thereafter is more than I can understand.

"Half the ills that come to humanity are due to the physical condition of the individual. A man who is in fit condition can ward off great gobs of sickness, and the poor, run-down bird just keeps right on running down faster and faster until he runs right out the bottom

of the funnel and we have a little parade and then go merrily on as before.

"I remember when I first found that I meeded something to tune me up. I was working along the same as you are. In the old days I used to be quite active. When I was younger I played baseball and all that sort of thing, and was quite a spry young man; and even after I became more absorbed in business I kept it up. But finally I quit exercising all together, and it was quite a long time before I noticed what was happening to me.

Eliminating Fatigue

"I found that I tired easily and that I used to get groggy in the afternoon. I laid it to coffee at first—and kept right on drinking coffee. Then I thought it was smoking. In fact, I laid it to everything under the sun except the right thing. Then I was sick—and darned sick, too—and after it was all over the old doc told me I ought to exercise regularly.

"He got me going with a mass of exercises that any man can do in the room in the morning. They are all full of turns and twists and jiggles that at first put kinks in places you never knew you had before, and you grunt and puffike an old horse in a snow bank. But finally you get limbered up, the thing becomes a habit and you rather enjoy it.

"After it all—and just before you shave—comes a cold shower with a real ding to it. That, at first, makes you puff and roar and you think you're going to die—but are disappointed.

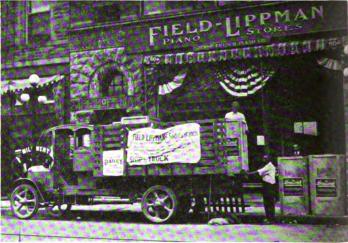
"It's the easiest thing in the world to pay little attention to your physical condition, Tommy, because you really can live and breathe and get along without it, but if you do overlook it it's like letting machinery get rusty. Some day she all goes blooey and then you have to get a new machine.

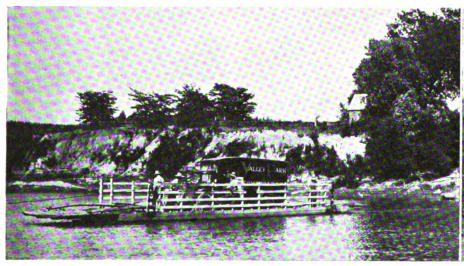
"I'll tell you what I'll do. I'll take you down to the club right now and start you right—what?"

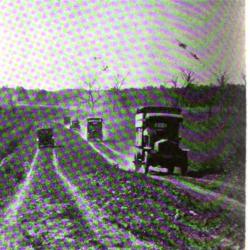
"Suits me." said Tommy, and he looked more cheerful before he even got as far as the door.

Seen Through the Eye of the Camera



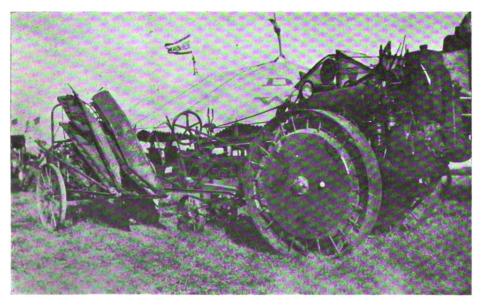






Shipping by Truck in Missouri

The recent St. Louis and Kansas City ship-by-trucks tours, meeting at the state fair at Sedalia, traversed good roads and bad and carried commercial consignments on the way. The pictures were taken at random



Moline Universal tractor operating a corn harvester at the Aberdeen, N. D., demonstration

Here's an Idea

Do you sometimes find a truck sale falling through because the prospect fears the vehicle would have periods of idleness?

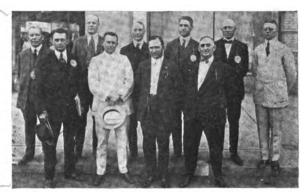
A Philadelphia dealer ran against this obstacle, not once, but time and time again, and overcame it by selling haulage contracts with trucks, where the purchasers desired.

Motor World will tell next week how the plan was carried out.

Here and There in Automotive Circles







State of Washington Dealers in Fifth Annual Convention

Some of the golfers; first prize won by A. S. Eldridge of the Eldridge Buick Co., Seattle; from left to right, William J. Coyle, executive secretary, Seattle; A. C. Schaefer, Seattle; P. E. Sands, Seattle; Alfred Ayerst, Seattle; F. W. A. Vesper, president National Automobile Dealers' Association; A. S. Eldridge, Seattle; E. L. Skeel, association attorney; F. C. Finlay, Spokane; O. W. Harris, Yakima; Leon Titus, Centralia

Executive committee, left to right, T. W. Little, Tacoma; William J. Coyle, Seattle; A. C. St. John, Chehalis; W. A. Wicks, Seattle; E. L. Skeel, Seattle; Guy E. Riegel, president, Spokane; A. S. Eldridge, Seattle; Fred H. Chandler, Yakima; P. E. Sands, Seattle; E. G. Hoffman, Seattle.

Citrus Belt Dealers Getting Wide Publicity by Reform Activities

THE Citrus Belt Automobile Trades Association, Pomona, Cal., is getting a lot of favorable publicity throughout California as a result of two distinctive campaigns—one advertising the business houses of its members as establishments built on integrity and square dealing, the other advocating mutilation of wornout tires, so that they cannot be rebuilt and palmed off on an unsuspecting public as good tires.

The suggestion that "junk" tires be cut completley in two, so that they can be utilized only as junk, is meeting with commendation in sections of California outside the citrus belt, and A. V. Storer, secretary of the association, thinks that its adoption generally would "prevent these junkies from milking the public a million times or so a year." He is getting letters endorsing the plan, one from the Western Rubber & Supply Co., Los Angeles, announcing that its sales-

men were "spreading the gospel."
The association's idea of placing before the motoring public, through local advertising, the protection and service afforded at every garage showing the Citrus insignia, has "taken" strongly in the Pacific Coast state. Regarding the plan and its application a statement

by Storer says:

"Having an association insignia, we first insist that the member, or prospective, be a worthy representative before he shall display it to the automobiling public, and then we do our best, by appealing to all the finer instincts of clean business conduct and ethics and down-to-date business progressiveness in merchandising to see that he not only is in a position to deserve the confidence of the public and give it protection (for which the insignia stands) but that he will himself use every endeavor to merit that confidence."



A. V. STORER
Secretary, Citrus Belt Automobile
Trades Association.
Digitized by

A Department of

BETTER MECHANICS

No. 117

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the thirteenth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. Future installments will deal with operations on other parts of the car

By J. HOWARD PILE

PART II—THE FRONT AXLE ASSEMBLY

This Week

The Front Axle Assembly

VERHAUL operations of the front assembly may be divided roughly into two classes which require somewhat different treatment. In the first place, where the wheels only are to be worked on, a quick-acting jack which will raise the front wheels clear of the ground is all that is necessary.

In the second place, complete overhaul of the front assembly or any operation which entails the removal of the axle itself or the removal of the spring will necessitate lifting the frame of the car and thus leave the axle hanging.

Such a device is shown in Figs. 109 and 110.

1-There are two hooks at the lower end of the device and a ring at the top. Hook the hook of a chain hoist into the ring and adjust the height so that the hooks are a little below the level of the lamps.

2-Hook each of the hooks on the fender iron below the nut on the end of the lamp bracket.

3-Raise on the chain hoist until the wheels are just clear of the floor.

4—Remove the cotter pins and take the nuts off the studs which hold the ball cap of the radius rod.

5-With a speed wrench, remove the nuts and bolts from the cap on the ball socket on the lower end of the steering

6-Remove the cotter pins, nuts and bolts from the spring shackles.

7-This will allow the axle to drop down till the wheels rest on the floor and the connections will be loose so that the axle can be wheeled out to the bench.

8-If the hoisting hook is needed elsewhere, the car can be dropped down on a couple of short jacks placed under

Next Week Rear Assembly

Future Installments

Chassis frame and dash. Body, top and windshield. The steering gear.

What Has Been Covered

I-The Power Plant

1.-itemoving the engine from the car. 2-Taking down the engine. 3-Testing and straightening the crankshaft.

crankshaft.

Rebablitting the cylinder block.

Reboring the cylinders.

Fitting new pistons.

Fitting the piston pin.

Aligning the connecting rod.

Fitting the rings to the pistons.

Burning-in the bearings.

11-Testing and overhauling the mag-

neto.
Overhauling the transmission.

13—Minor engine repairs. 14—The carbureter. 15—Assembly of engine and trans-

mission.

Testing the engine.

The radiator.

Engine numbers.

the front end of the running boards

9-A combination stand like the one shown in Fig. 111 permits holding the axle firmly while the wheels, spindle bolts and other parts are removed and overhauled. The stand is also capable of handling the rear axle and with certain attachments, the engine.

10-Lift the axle onto the stand and close up the vise jaws.

11—Remove the hub caps with the hub cap wrench. The quickest way to do this is to start the cap off by holding the tire of the wheel with one hand and striking a few blows with a hammer on the wrench when it is in position on the hub cap. As soon as the cap is loosened. hold the wrench with one hand and spin the wheel with the other.

12—Remove the surplus of grease.
13—Take out the cotter pin.

14-Loosen the nut with the hub cap wrench which has a smaller hexagon hole in the other end for this purpose. The nut is usually on so tight that the wrench must be struck with a hammer to start it.

15—Take off the lock washer which slips off by hand.

16—Unscrew the outer cone. This sometimes will come off by hand, but if it will not, there are two recesses, one on each side and any adjustable wrench can be used to unscrew them.

17—The wheel will now lift off.

18—Repeat the operations with the other wheel.

19—Wash off all the parts, removing all grease and particles of ground metal.

20-Examine the balls in both the inner and outer races, checking them up to see whether any are missing and then roll them around with the fingers to see if any of the balls have flat sides or are broken. A broken or damaged ball must be replaced and if several are damaged or missing, it is best to replace the entire set. It is really best to replace the entire set anyway as the new balls will all be of one size, whereas replacing one or several puts new balls of standard size in the same race with balls that may be worn below size. This will throw all the strain onto the new balls and may cause them to break or to score the races.

21—The felt dust washers should be replaced if they are so stiff that they do not give readily. They should be elastic enough to hug closely so as to keep the grease in and the dust out.

22—Examine the wheels themselves. If the spokes are loose or shaky or if the wheels have been strained so that they are out of alignment, new wheels should be installed.

23—To remove the hubs from the wheels, hold a blacksmith's chisel on each of the flange nuts in turn and hit it a sharp blow with a hammer. This will break off the bolt, as the bolt is pretty hard. The old bolts can then be driven out with a punch, the parts

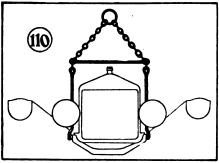


Fig. 110—Front end hook in position. Each hook is placed on the fender iron below the nut on the end of the lamp bracket. The large ring at the top is put on the hook of a chain fall

of the hub separated and a new wheel put in.

24—The bearing races are removed on the arbor press with the drivers shown in Fig. 115.

Assembly of Wheels

1—Replace races which are worn or cracked. The wheel parts of the races are inserted on the arbor press with the same drivers that they were removed with.

2—New balls are inserted by laying the wheel flat, filling the race with grease and sticking the balls into the grease. The adhesion of the grease will keep the balls from falling out. After the retaining rings are slipped into place the balls cannot fall out

3-The inner race of the large bear-

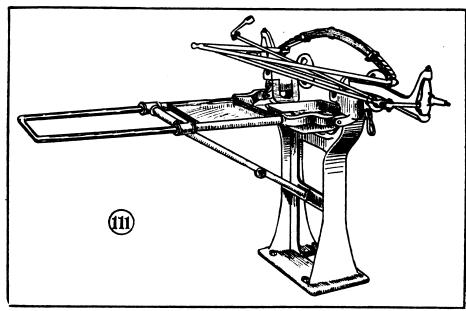


Fig. 111—A combination stand which is used for holding the front axle.

The two jaws hold it firmly while the operations are performed

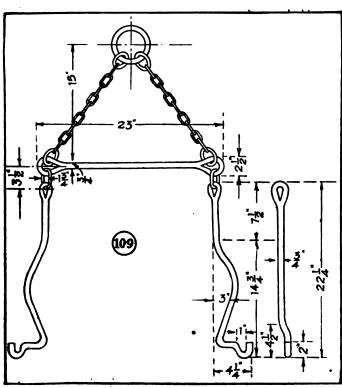




Fig. 112—Spindle bushing reamer which reams the two bushings so that they are in perfect alignment

Fig. 109 — Detail drawing of the front end hook for raising the front end of the Ford while removing or repairing the front axle or spring ing can be removed by cracking it off with a hammer or driving it with a cold chisel. The new one is replaced on the spindle by driving it on with a short piece of pipe and a hammer.

4—In adjusting the wheel bearings, set the adjusting cone up with the wheel spinning. When the cone gets tight enough to brake the wheel, loosen it about one-third turn, put on the lock washer, replace the nut and tighten it up as hard as it will go.

5—Test the wheel again. It should be loose enough to allow the wheel to spin freely and finally rock back and forth with the valve at the bottom. If it stops abruptly at any point, the bearing is too tight.

6—It should not be so loose that there is a perceptable shake to the wheel.

Spindle Body Bolt and Bushings

1-Before the spindle bolts are removed the nuts and bolts connecting the



Fig. 113—Spindle arm and spring perch bushing reamer

steering arms to the tie rod should be disconnected so that when the spindles come out, the spindle bodies can be lifted right out either with or without the wheels, as the case may be.

2—Remove the cotter pin and the nut underneath the axle.

3—If the spindle has been oiled pretty regularly, there should be little trouble in turning the bolt out. If, however, the spindle has never been given any lubrication, as is often the case, heroic methods may be necessary to get the bolt out. The following methods have been used to advantage:

4—Pour kerosene through the oil filler and around the crack between the spindle body and the bushings, allowing it to

remain there some time. This may cut the rust sufficiently to allow the bolt to be turned out.

5—If it does not respond to the kerosene treatment, heat the lower lug on the axle with a blow torch. It should not be heated much more than the boiling point of water because the axle is heat treated, and if the heat applied is too great, it will soften the axle, resulting in possible bending of the part, which may result in a serious accident.

6—If neither of these methods proves successful, saw the bolt off with a hack saw just under the top lug of the axle. Then with a large wrench bend the spindle body out until the spindle body can be pulled off the bolt. Then bend the bolt back in position and turn it out with a pipe wrench.

7—If it refuses to respond to the pipe wrench, saw the bolt off flush and drill the old stump out, retapping the hole. If the threads are gone, the hole is bored larger, a plug inserted and then the plug is drilled and tapped.

8—There are hundreds of ways of taking out the spindle body bushings. Two

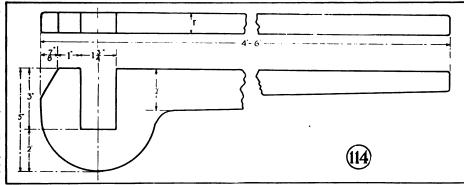


Fig. 114-Font axle bending iron

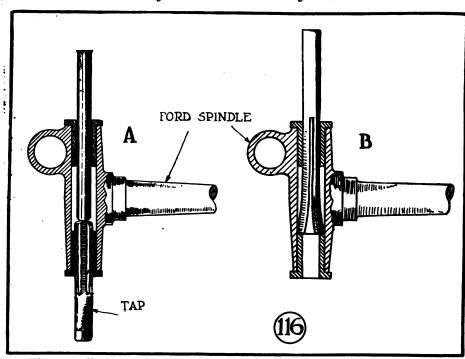


Fig. 116—Two methods of removing spindle body bushings. A shows a tap started in one of the bushings so that an old spindle bolt can be driven against the bottom of the tap, both tap and bushing being driven out. B is a split pin which is compressed to get it in the top bushing, the legs then spreading out so that they will push the other bushing out

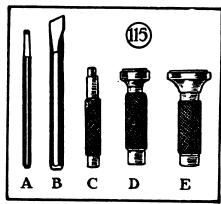


Fig. 115—A is a spindle body bushing bracket, B an inner or outer ball race remover, C a spindle arm bushing driver, D a front wheel outer ball race driver, E a front wheel inner ball race driver

of these methods are shown in Fig 116 and another tool for the same purpose is shown in Fig. 115 at A. These are self-explanatory.

9—When the new bushings are inserted they are to be reamed with the reamer shown in Fig. 112. This is in the form of a lining reamer so that the two holes will be absolutely in line. Where the lining reamer is not available, the bushings should be taken out one at a time and reamed through the old bushing, using this as a guide.

10—The bottom bushing should be filed with a flat mill file till the spindle body with its bushings will just go in the space between the lugs on the axle. Lost motion is to be avoided at this point, so that the filing will have to be done carefully. As a rule, not very much filing is necessary.

11—In replacing the spindle bolt, see that the oil passage is clear so that the bushings will be properly lubricated when oil is put in the filler.

Spring Repairs

All of the rattle can be taken out of the springs by rebushing the eyes and inserting new bolts. The bushings are driven out on an arbor press and new ones inserted in the same way.

1—Use the proper driver on the arbor press.

2—After replacing the bushing, ream it with the reamer shown in Fig. 113.

3—Put in new bolts, set up the nuts and insert cotter pins.

4—In replacing a broken leaf, the spring must be taken apart, the broken pieces removed and a new leaf inserted.

5—The leaves should be laid up in a mixture of grease and graphite.

6—The center bolt can be inserted by gripping the leaves in a vise and tightening the jaws up until the nut can be put on the center bolt.

Straightening the Axle

1—A bent front axle is straightened cold by using the bending bar shown in Fig. 114. This has sufficient leverage to bend any part of the axle.

2—A template is convenient for use when using the bending bar and one can

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be cut out of a piece of wood or sheet metal, using a new axle as a guide. It should be so cut that it touches the upper part of the I-beam of the axle all the way across. By bending the old axle to correspond to this template, one can be sure that the axle is straight. Another template can be made to fit across the top of the axle to check up the alignment in this direction.

3-Place two steel bars which are the same diameter as the spindle bolt and threaded on the lower ends in the spindle bolt holes. By looking across these the alignment of the spindles can be checked up and corrected if necessary.

4-A bent radius rod had best be re-

.

placed with a new one, as the slightest buckle will weaken it and make another bend imminent at any time. The old rod is removed by taking off the two nuts in front and driving out the stubs.

5-New bushings are put in the steering connections by driving out the old ones, inserting new ones and reaming them out to the correct size. New bolts should always be used.

6-In lining up the front wheels, the bolt is slipped out of one end of the tie rod yoke and the yoke turned one way or the other till the distance between the fronts of the rims is about 1/4 in. less than the distance between the rear of the rims. The distance between the tops is

considerably greater than between the bottoms so that the center of the tire comes approximately beneath the spindle bolt.

7-Before turning the front assembly out as being properly adjusted, check up the following points:

8-Grease in the hub caps.

9-Connections all tight with no rattles.

10-All bolts and nuts tight.

11-All cotter pins in place.

12-Spring clips set up tight and cotter pins in place.

13-Grease in spring leaves.

14-Wheel bearings correctly adjusted.

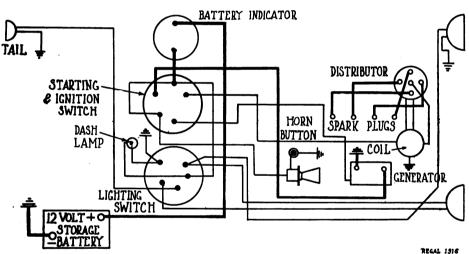
15-Axle and wheels in line.

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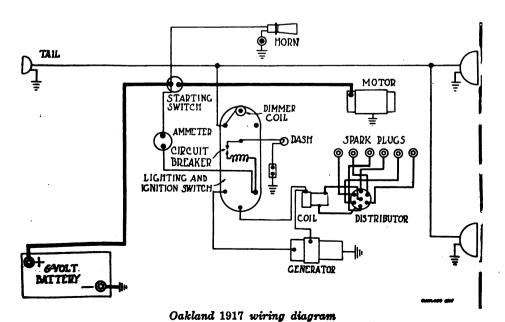
SHOOTING TROUBLES

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When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues



Regal 1916 wiring diagram



Oakland and Regal Circuits

Editor Motor World: We are having a little trouble with an Oakland Sensible Six, 1917 Model 34, which is equipped with Delco starting and lighting system. Will you print a wiring diagram in your Shooting Trouble Department?

We also have a Regal Big Four 1916 Model D equipped with a Dyneto single unit 12-volt starting and generating system and Atwater Kent type K2 auto-Will you also matic ignition system. print diagram of this?-Philip Baker, Blairsville, Pa.

Oversize Tires

REGULAF	RCLINCHER
Regular Size	Oversize
28 x 3	29 x 31/2
30 x 3	31 x 3½
32 x 3	$33 \times 3\frac{1}{2}$
30 x 3½	31 x 4
32 x 3½	33 x 4
34 x 3½	35 x 4
32 x 4	33 x 4 1/2
- 34 x 4	35 x 4 1/2
36 x 4	37 x 4 ½
32 x 41/2	33 x 5
34 x 4 ½	35 x 5
36 x 4 ½	37×5
36 x 5	37 x 5⅓
QUICK DETACE	HABLE CLINCHER
Regular Size	Oversize
30 x 31/2	31 x 4
32 x 31/2	33 x 4
04 01/	95 4

Regular Size	Oversize
30 x 31/2	31 x 4
32 x 3½	33 x 4
34 x 3½	35 x 4
36 x 3 1/2	37 x 4
32 x 4	33 x 4 1/2
34 x 4	35 x 41/2
36 x 4	37 x 4 1/2
32 x 41/2	23 x 5
34 x 4 1/2	35 x 5
36 x 4 1/4	37 x 5
38 x 4 1/2	39 x 5
42 x 4 1/2	43 x 5
36 x 5	37 x 51/2
36 x 51/2	37 x 6
38 x 51/2	39 x 6

STRAIGHT SIDE

• • • • • • • • • • • • • • • • • • • •		
Regular Size	Oversize	
32 x 31/4	33 x 4	
34 x 31/2	85 x 4	
36 x 3⅓	37 x 4	
34 x 4	35 x 4⅓	
36 x 4	37 x 4⅓	
34 x 41/4	35 x 5	
36 x 4 1/2	37 x 5	

Editorial Observation

Be on Your Guard

THE South, which has had prohibition for some time, has had plenty of time to get enmeshed in litigation on the subject. And what has happened in the South should interest dealers everywhere, because the advent of prohibition may bring about the same conditions everywhere.

The United States Circuit Courts of Appeal in the Fourth and Fifth Circuits have decided that wherever an automobile is seized by a Federal Revenue Agent for carrying liquor upon which the United States Internal Revenue license has not been paid (moonshine liquor), it is subject to confiscation and forfeiture under Section 3450, U. S. Revised Statutes.

The Fourth Circuit embraces the States of Maryland, Virginia, West Virginia, North Carolina and South Carolina. The Fifth Circuit embraces Georgia, Florida, Alabama, Mississippi, Louisiana and Tayan

In view of the decisions in these two circuits, the Board of Directors of the National Automobile Dealers' Association has notified the members in these eleven states that the safest plan to avoid loss during present litigation is for the dealer to require a guarantee bond from his customers for the purchase price of his car. Mortgages offer no protection. A car on which the dealer holds a mortgage or conditional bill of sale is subject to confiscation also.

In the meantime the association is assisting in the trial of a case on this point which will be carried to the Supreme Court of the United States for final settlement. Meanwhile, keep your eyes open no matter where you live.

Profit and Satisfaction

THE dealer who sells a farm tractor gets more than a profit on the transaction.

His reward for inducing a farmer to inaugurate on his property the use of automotive equipment includes, as well, the satisfaction of knowing that he is a direct contributor to increasing the nation's food production.

Few farmers go out and buy a tractor as they would purchase a horse. Some one has to sell them the idea, and in the final analysis it is the local dealer who performs this function.

The dealer, naturally, is not in business for his health, but it is a poor occupation that draws its compensation only in cash. The tractor merchant is helping to solve the problem that, as an aftermath of war and its ravages on agricultural lands and among

agricultural workers, has rocked the world to its very foundations—the maintenance of an adequate food supply.

One has but to tour a farming section where the tractor "population" is in the minority, as compared with use of horses for cultivating and hauling, to realize the importance of the tractor as a production accelerator. The farmer who relies on horse power is forced, through lack of labor and time in the planting and harvesting seasons, to let many fairly good acres lie idle. The farmer with a tractor, or a fleet of them, needs far fewer men to the acre, his planting, cultivating and harvesting periods are cut from weeks to days and he is able, with the time saved, to turn over the sod and get things growing in many corners that under traditional conditions remained little better than waste land.

The tractor-cultivated farm is a highly productive farm. And farm products are the staff of life.

So the tractor dealer, helping himself, helping the farmer and helping an important branch of the automotive industry, also is helping the hundred-odd millions who make up the family of his fellow-countrymen.

Uplift by Contract

A N effective step in making dealers better and making more money for the dealers has been taken by one of the large car manufacturers. This manufacturer, after various forms of effort to make dealers better business men, will in his next batch of dealer contracts stipulate that the dealer buy and erect a certain number of road signs and pay for a certain amount of sales follow-up work.

This work should be done extensively by all dealers. Probably some dealers will resent this "interference" by the factory, but some day the same dealer who resents it may look back with pleasure to the day when the factory took him by the collar and forced him to be a better business man and a better salesman.

Reports from automotive exhibits at scores of state fairs indicate that the American farmer is more interested in rolling stock than live stock.

King Alphonso of Spain has purchased ten American automobiles. Which speaks well for the King—and the cars.

"Co-operate!" is the N. A. D. A. text for the trade. And it's a golden text.

Why not make automobile thieving a crime instead of an outdoor sport?



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

The Silent Partner

Editor Motor World: For four years I have been a regular subscriber to Motor World and, to put it mildly, it has now become a necessary part of our business equipment. I look forward to its arrival with keen anticipation, for in it I find advice and ideas. I see what is going on in motor activity round about us and learn what other dealers are doing to bring their business up to the high standard that makes them a credit to themselves and to the automobile industry generally. Motor World is my constant companion and silent partner, and whether it be while waiting for a train or taking a few hours' rest after the day's work, I always find between its covers, a great deal of information .- M. J. J. Sheridan, Sheridan Storage Battery Co., Cedar Rapids, Iowa.

A Word for Charlotte

Editor Motor World: Congratulations on the new heading in the Motor World of recent date giving the news from Charlotte.

The volume of business out of Charlotte on automobiles, tires and accessories is exceeded only by Atlanta in the entire South. That means that our distributers here do more business than those of Richmond, New Orleans, Memphis, Nashville, Birmingham, Savannah, and in fact a great many other cities which have a larger population and do a larger volume of other kinds of business than Charlotte does.

I am sure the dealers who are subscribers of your paper throughout this section of the Piedmont will be glad to read the news on Charlotte which you have started to publish.

We wish you continued success in this very excellent work you have been doing in making better men in this automobile industry.—Carolinas Auto Supply House, Charlotte, N. C.

What He Needed in Seven Hours

Editor Motor World: We could not get along without Motor World, as the following will illustrate. Some time ago we wanted a ring gear and drive pinion for a car that was not made any more. We sent a telegram to your Chicago branch at eight o'clock in the morning and at three o'clock in the afternoon we had the names of three different firms who could supply gears, so you see Motor World is a great help to us in

more ways than one. Hoping to see Motor World grow larger, we remain, Stouts Garage & Machine Shop, Fairview, Ill.



Reckless Drivers

Editor Motor World: In a recent issue we noted an interesting photograph of the signboard in India. We are enclosing herewith a small snapshot of one we have had for several months at the top of the famous Stag Hill on the Golden Belt road, near Manhattan, Kan.—Blake & Bardwell, Manhattan, Kan.

Bouquets

Editor Motor World: We have received Motor World containing an account of the New York state tractor demonstration at Holcomb, Ontario County. It was a splendid article and we feel elated that you consider the demonstration of such value as to merit your attention.—F. G. Behrends, Superintendent of Farm Machinery, Department of Farms and Markets, Albany, N. Y.

Editor Motor World: Yours is the one trade publication that is of value to me and its long acquaintance has made me know that there is none other necessary for my business.—Earle S. Miller, Santa Monica, Cal.

Editor Motor World: We have been subscribing to Motor World for a number of years and consider it one of the best magazines being published for the motor trade.—Park Automobile Co., St. Louis, Mo.

Flin Auto Supply Company Amounces Change of Policy

Effective Monday, August 4th, we are pleased to advise that our Retail Bepartment will be discontinued.

In making this move we feel that after reviewing the development of the industry, with the abnormal demands for cars and equipment made upon the Johder, Car Agent and Benler, it is with a view in being permitted to render a more adequate service through the channels of the Car Agent and Bealer that we are prompted in effecting this change of policy, and confining our subsequent operations in the distributing of Automotive Equipment, Garage Machinery and Supplies by the medium of a wholesale basis exclusively.

The industry has long felt the urgent need of a more confuencent source of service, and since the many dealers that have established themselves have, in a great measure, made for that confuence, it is with a deep sense of appreciation to the old as well as the nefuly established dealers that we make this change.

It is altogether fitting at this time that we be permitted to be speak our many thanks to our friends of the consuming public who have so kindly favored as with their generosity and prestige, and may we not ask for a continuance of those wanted courtesies through the channels of our many Bealers, Car Agents and Gurage Operators?

Flin Auto Supply Company

Distributors and Exporters of Automotive Equipment 273-275 Halsey Street, Newark, N. I.

The card reproduced above chronicles the advent of another supply house in the ranks of "wholesale only"

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Repairshop Shortcuts

From Motor World Mechanics

2287—EMERGENCY CONDENSERS

When an ignition coil breaks down in nine cases out of ten the trouble is caused by a faulty condenser. An emergency repair for this is made by opening the bottom of the coil, digging out enough of the sealing compound to reach the condenser and cutting a lead going from it to the primary winding. The vibrator spring and point are removed from a Ford coil unit which is known to be in good condition. This is fastened somewhere on the dash with a leather strap and screw and a wire run from the screw on the contact point plate to the connector on the igniter to which the primary coil wire is fastened. A wire is also run from the screw where the vibrator was removed to a good ground on the engine. If this is carefully done the condenser in the Ford coil unit will operate on any six volt system with good results. In the case of a bad condenser on the Buick Delco igniter, it is only necessary to disconnect a short lead to the condenser on the end of the starter frame and connect the Ford unit to the igniter terminal and to the ground. -H. V. D. Sweet, Cherry Valley Garage, Cherry Valley, New York.

2288—SPARK PLUG TESTER

A spark plug tester is made by adding a handle and a wire spring ground connection to a commercial spark gap. A clip contact is also placed on the end. In testing ignition the spark gap should be set about 1/16 in. and to test a defective plug it should be set about ¼ in.—V. C. K. Robey, Bethesda Garage, Bethesda, Md.

2289—VALVE CAGE GRINDER

A tool for grinding in valve cages is made of pipe fittings. The pipe fitting handle is connected to the valve cage by means of set screws and a coupling as shown in the illustration. The handle should come above the dash and the coupling should be cut in half, as this just allows material for the thread.— E. J. Morin, Portland, Oregon.

2290—BRAKE DRUM PULLER

A brake drum puller for the S. G. V. car is made from a piece of iron 2 in. wide by 5/16 in. thick, bent in the shape shown in the illustration. At the center a hole is bored and tapped for a % in. cap screw. Two holes are bored in the ends to fit over the universal joint pins. These holes are 1% in. in diameter. In operation the strap is bent outward

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few worls.

2—Send a sketch, showing as clearly as possible the construction of the device and how it is applied to the job you are talking about. If necessary send two or three sketches. WE MUST KNOW HOW THE DEVICE WORKS. When a shortcut is applied to a car it is sometimes easy to tear a page out of an instruction book indicating on one of the pictures just where and how the device is applied.

3—If convenient, send one or two Kodak pictures. This is not really necessary, but it will enable us to quickly grasp your idea and may insure the acceptance of a shortcut which may otherwise be confusing.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

slightly to allow the holes to fit over the pins and the cap screw is then set down thus pulling out the brake drum.—James Tripp, New Bedford, Mass.

2291—FUSE PLIERS

A handy pair of fuse pliers for removing and renewing small enclosed fuses from their clips on the fuse board is made by detaching two legs of a folding boxwood rule and putting grooves in the end as shown. The grooves are made by clamping the two parts of the rule together and drilling a hole so that

one-half of the hole comes in each leg.—Chas. H. Willey, Concord, N. H.

2292—REAR AXLE TRUSS

A truss for supporting the rear axle of a car is made out of a piece of iron or steel rod attached to the brake on each side and passing under the differential case. The rod should be ½ or 9/16 in. and threaded on the end. A hole is drilled 1½ in. under the roller bearing of the axle housing and nuts placed on the inside.—Mason Motor Car Co., Naruna, Va.

2293—EMERGENCY REPAIR FOR CONNECTING RODS

An emergency repair for connecting rod bearing that has been burned out consists of removing the connecting rod cap, cutting a piece of leather the proper size from a belt and clamping the connecting rod cap to the connecting rod itself. It is stated that the engine can be run for some time in this manner without knocking.—A. A. Lobee, Brooklyn, N. Y.

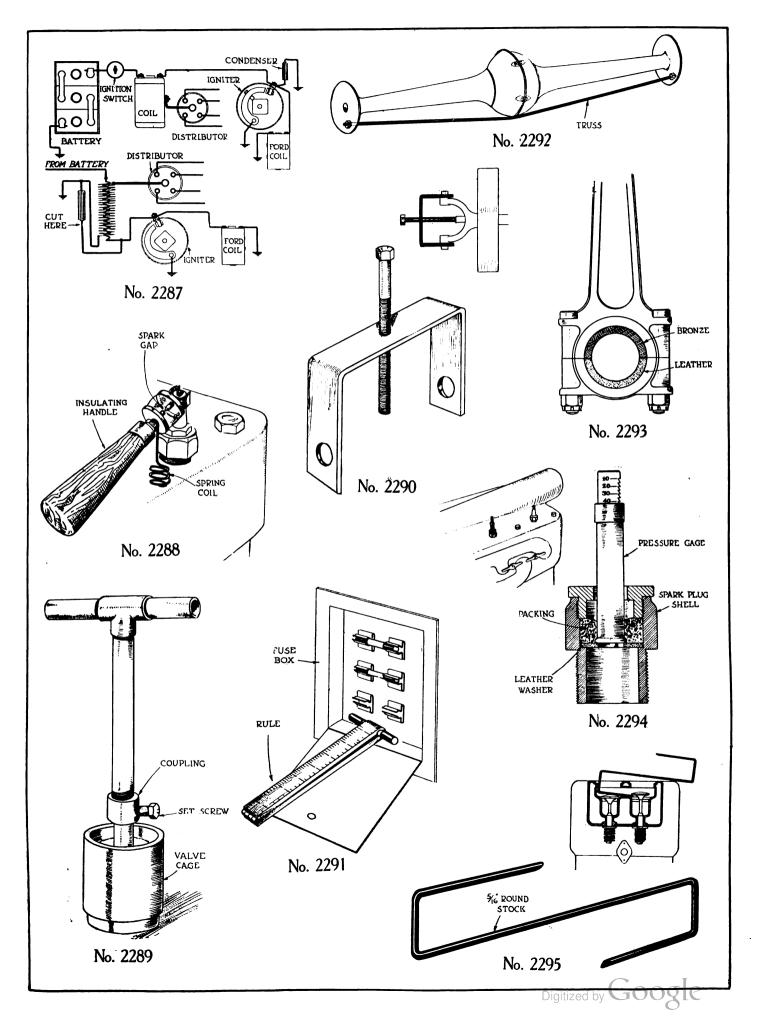
2294—COMPRESSION TESTER

A compression tester is made from the shell of an old spark plug to which is attached a tire gage as shown in the illustration. The porcelain is removed and a washer fitted at the bottom. The gage is then inserted and packing is placed in the space around. The packing nut then forces this packing down against the base of the tire gage until a tight joint is made. The instrument is then placed in the spark plug hole and after the engine has been warmed up it is turned over by hand. The compression will be registered in pounds by the tire gage.—A. A. Lobee, Brooklyn, N. Y.

2295—VALVE LIFTING TOOL

A tool for lifting the valves out of a T head engine is made from a piece of 5/16 in. rod bent to the shape shown in the illustration. After the pin has been removed beneath the valve spring washer the engine is turned over until the valve lifter starts the valve upward. The tool is then inserted, as shown in the illustration, and the valve can be lifted right out.—Lester W. Stoyle, Front Street Garage, Dunkirk, N. Y.

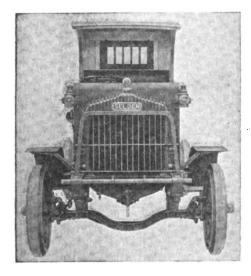
LANSING, MICH., Sept. 13—The Bates Tractor Co. is about to bring out a new model tractor. It abandoned the tractor work during the war, but now proposes to get back to tractor production.



FLEXIBILITY

Features New Selden

ACHASSIS with rivetless, flexible frame, flexible mounting of all units, amidship transmission designed for all types of power take-off and new flexible radius rods are features of the new Selden 3½-ton truck. The chassis is made in three lengths and three wheelbases as follows:



Model 3½ A-7, 7 ft. behind the driver's seat is known as Selden 3½-A tractor. Wheelbase 120 in.

3½ A-12½, 12½ ft. behind the driver's seat with 162-in. wheelbase.

3½ A-16, 16 ft. behind the driver's seat with 190-in. wheelbase.

The engine is the Continental model E-7, 4½-in. bore by 5½-in. stroke, de-

veloping 40 horsepower at governor speed with the truck traveling at 15 miles per hour. It is mounted at the front around the starting crank housing and at the rear on a heavy pressed steel member bolted to a flange on the crankcase. This member is attached to the frame universally to eliminate undustrains due to the weaving of the frame. The motor is fitted with Eisemann waterproof magneto and Stromberg type M carbureter, the carbureter adjustment being controlled from the dash. The motor speed is controlled by the new type Pierce governor.

The clutch is of special design and is made by the Brown-Lipe Gear Co. It is fitted with a greater number of plates than used in standard practice to give long life and to stand up under abuse. It is fully enclosed and mounted on the engine. The clutch is connected to the amidship transmission by a Spicer universal propeller shaft. The transmission is a new style Brown-Lipe with special gear ratios to counteract the higher gear ratio in the rear axle which gives high speed on direct drive. The gear ratio in the rear axle is 8% to 1.

In conjunction with the Timken front axle the heavy type Gemmer steering gear is used. This is mounted on the right hand side of the truck. The mounting bracket also supports the pedal assembly.

The frame side members are made of pressed carbon manganese steel. The frame construction is of the flexible type. There are no bolt or rivet holes in the (Continued on page 30)

Specifications

Capacity—7000 lb.; price, \$3,850. Body Weight Allowance—1600 lb.

Chassis Weight—7200 lb. Speed—14 miles per hour.

Motor—Continental—4 cylinder—in pairs, "L" head—4½-in. by 5½-in. stroke.

Horsepower-40.

Maximum Motor Speed — 1125 r.p.m. Governor controlled.

Carbureter—Stromberg M-2.

Ignition—Waterproof high-tension magneto.

Radiator — Vertical tube with helical cooling fin. Trunnion suspension.

Clutch—Selden-Brown-Lipe. Dry plate multiple disc with 17 plates.

Control—Steering gear on righthand side with brake lever mounted on frame and gear shift lever mounted on clutch housing.

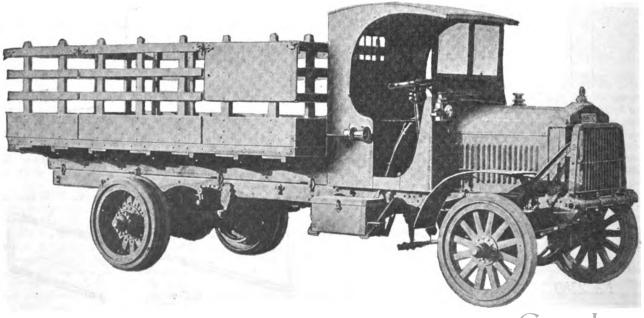
Wheels—Artillery, wood; metal wheels at additional cost.

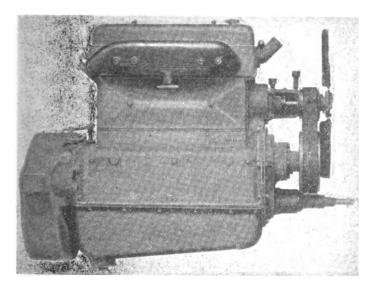
Tires—Front, 36 in. x 5 in. single; rear 36 in. x 10 in. single (36 in. x 5 in. dual optional), standard pressed-on type — demountable optional. Firestone and Goodyear standard equipment.

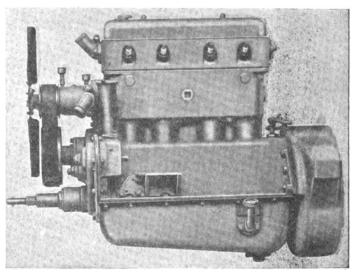
Transmission — Brown-Lipe selective sliding gear type, mounted amidship.

Rear Axle — Timken — worm gear, full floating.

Wheelbase—Standard 162 in.
Tread—Front, 66½ in.; rear,
68 in.







Side views of the Weidely engine

THE NEW WEIDELY ENGINE

For Trucks and Tractors

A N overhead valve four-cylinder engine suitable for heavy duty truck or tractor service, with a bore and stroke of 3% x 5% in., three-point suspension and provision for mounting either magneto or battery ignition and starting and lighting equipment, is the latest product of the Weidely Motors Co. of Indianapolis. It is known as model MA.

All bolts, studs and nuts are S. A. E. standard and are securely locked with either cotter pins or lock washers. Where it is considered necessary, as, for example, on the studs that hold the motor head to the cylinder, special nuts are used for the purpose. Where studs are screwed into various parts, threads are at least 1½ diameters long.

The four cylinders are cast integral with the upper half of the crankcase. The cylinders are bored, reamed, annealed and ground to size. Ample water jacket space surrounds each individual cylinder barrel.

The cylinder heads containing the valves and the intake and exhaust ports are removable and are fastened to the cylinders by ten large nickel steel studs. Ample water space is provided around the valve seats and spark plug bosses.

The pistons are provided with cross ribs above the wristpin lugs to support the domes. There are three rings, oil grooves and drain holes to insure a clean exhaust. The wristpins float in the connecting rod as well as in the piston, and are held in place by a snap ring in each end of the piston pin hole. This is done to provide a greater amount of bearing surface for the wristpin than usual and to permit the piston to expand and contract without getting out of round. The wristpin is made of alloy steel, hardened and ground.

The connecting rods are alloy steel forgings, heat treated, fish-back section in the shank. The upper end into which the wristpin fits is lined with a bronze bushing, while the big end has a very large babbitt-lined brass back bearing which is adjustable by the use of laminated shims.

The crankshaft is mounted on three large bearings in the crankcase. It is drop forged. The flange for mounting the flywheel is forged integral with the crankshaft. An adjusting nut on the front end of the crankshaft takes up end play and large flanges which are forged on each side of the bearings take up the clutch thrust. The crankshaft is drilled throughout for pressure lubrication.

The camshaft is mounted in three phosphor bronze bearings, is drop forged of case-hardened steel with integral cams, and the flange for the mounting of the driving gear is also forged integral with the shaft. The bearings are slightly larger in diameter than the cams to permit of easy withdrawal from the bearings.

All main and connecting rod bearings are made of bronze, lined with No. 24 S. A. E. babbitt metal. They are of ample size to maintain low bearing pressures and are provided with oil grooves to insure accurate lubrication.

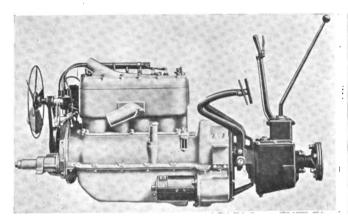
The timing gears have an extremely wide face and are helically cut on automatic hobbing machines. The relief valve in the oiling system overflows onto the timing gears, thus providing lubrication.

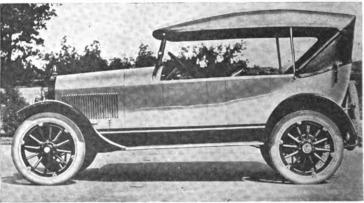
The valve tappets are of the mushroom type, case hardened and ground to size. They are tubular and of large diameter. A large removable steel plate with oil-tight felt gasket covers the valve tappets. The inlet and exhaust manifolds are cast integral and are made of cast iron. They are fastened to the cylinder head by means of studs.

The water circulating pump and fan are both mounted on a large diameter hardened and ground shaft, and are driven by a 2-in. fan belt. The pump impeller projects into the front end of cylinder water jacket and forces the water in and around the cylinders. The water ports are distributed between the top of cylinder castings and cylinder heads to insure a uniform flow of water around the cylinders as well as around valves and spark plugs. The fan being mounted on the forward end of the pump shaft is supported in an extension on the pump body castings through a large size Hyatt roller bearing. The stuffing box is very large and is packed with metallic packing.

The oil pump, mounted on the rear end of the engine, is driven direct by the camshaft. The oil is forced through a tubular header to the three main bearings and through a hollow crankshaft to the connecting rod bearings, also through holes drilled in the webs of the upper half of the crankcase to the camshaft bearings.

A gauze strainer is fitted around the oil pump inlet to prevent grit from getting into the oil. This strainer can be removed without disturbing the oil pump, underpan or other parts. A sufficient quantity of oil is thrown off the connectnig rods to lubricate the pistons and cylinders thoroughly. The pressure relief valve is placed in the gearcase in the front end of the engine, thus lubricating the timing gears. An oil gauge bolted to the side of crankcase indicates (Continued on page 80)





The New Crow-Elkhart

A New Crow-Elkhart Six

CUSTOM-FINISHED bodies are featured on the new Crow-Elkhart chassis. Option of ten color finishes with upholstery to match are offered. The new touring body has beveled edges, a high hood and a redesigned instrument board arrangement. Bodies are built in the Crow-Elkhart shops Kiln-dried ash is used and the curved parts are sawed to shape to reduce the possibility of warping. Painting is hand-brush work and all bodies are hand-rubbed in finishing. The price, with either roadster or 5-passenger touring body, is \$1,295. A 4-passenger sport type sells for \$1,355.

SPECIFICATIONS

Price, with touring body\$1,295
Number of cylindersSix
Bore31/8 in.
Stroke5 in.
IgnitionConnecticut
Starting and lighting
Tires
Wheelbase116 in.

Engine cylinders are block-cast, and the head is detachable. The Borg & Beck dry plate clutch is readily accessible and forms with the gearset and engine a unit power plant. The semielliptic rear springs are 52 in. long.

Fuel is supplied to the carbureter by a Steward vacuum tank, the main gasoline supply being contained in a 14-gal. rear tank. The weight of the complete car is given as being 2470 lb.

Flexibility Marks

the New Selden

(Continued from page 28)

top or bottom flanges of the frame rails. Another interesting point is the absence of rivets in the entire frame construction. All brackets are held by S. A. E. bolts fitted in drilled and reamed holes.

The controls are all within easy reach of the driver. The throttle is controlled by lever on the steering gear

and the accelerator pedal, which is mounted to the right of the brake pedal. These controls operate below the governor control, which prevents excessive speed. Electrical control is provided by a push switch on the dash and a spark lever on the steering gear.

The transmission control is attached directly to the clutch unit, making it possible for the helper on the seat to assist the driver by shifting gears on hills or in bad going. The emergency brake lever is attached directly to the frame. It is also in a position where the driver will not be interfered with in an emergency by the helper. The service break is operated by the right foot, and has a large rocking foot pad.

The brake rods are all in straight lines, making for efficient operation and eliminating binding and springing of the rods. The rock shafts are mounted as independent units on the tubular cross members, and under the worst frame weaving conditions it is said to be impossible to bind the brake operating mechanism. Hand brake adjustments are provided that permit the tightening of the brakes quickly. Differential equalizers are installed in the foot and emergency brake lines. The front springs are 42 in. long by 3 in. wide, with 10 leaves; the rear, 56 in. long by 31/2 in. wide, with 14 leaves, the front spring bolts 1 in. in diameter and the rear spring bolts, 11/4 in. in diameter.

The radiator is of special design made by the Long Manufacturing Co. It is built exceptionally strong and is mounted on 2%-in, ball trunnion suspension. The radiator is held in position by a tie rod to the all-steel dash. The dash is of characteristic design, built to withstand service and weather.

The seat is covered with metal and contains a large 30-gallon steel tank. The tank is fitted with a capacity gage. Particular attention has been given to seat cushioning for the comfort of the driver.

The truck is equipped with the following standard equipment: A Moto-meter, Veeder hub-odometer, heavy radiator guard mounted on frame, two side and one tail locomotive oil lamps, hand operated warning signal, heavy jack and complete set of tools.

The chassis will list at \$3,850 f.o.b. Rochester, N. Y.

Weidely Brings Out New Model Engine

(Continued from page 29)

by means of a float the amount of oil contained in the oil basin.

On the front end of the magneto shaft, and within the gear cover, is located the flyball governor, which is connected to a bell crank through a cross shaft. Pivoted on this bell crank is an adjustable governor spring, adjustable from the outside and having facilities for locking. Through a connecting link the bell crank is connected with a separate butterfly located between the intake pipe and carbureter. The entire governor mechanism is enclosed, and, after once sealing the adjustment on the governor spring, no changes can be made without breaking the seal.

Identification Card as Good-Will Builder

The Hurley Motor Co., Philadelphia, is issuing to purchasers or lessees of Res cars a combination leather bound identification card and bill folder, with the customer's name in gilt letters on the cover. On the card, which is intended not only to identify the car, but in case of necessity to serve as proof of ownership or right to possession of the vehicle, are spaces for the owner's name, address, serial number and date of purchase of the car, etc. With each folder the Hurley firm sends out a letter, emphasizing its aim to serve its customers and asking for the names of prospective purchasers to whom the recipient could recommend the Reo.

Book Review

Putting Mettle Into Metal. This is a thirty-one page book with paper cover printed by the Clark Equipment Co., Buchanan, Mich., illustrating and describing the factory, the working conditions surrounding the artisans and many other little intimate details regarding the manufacture of Celfor drills. The social side of the workers is well played up and many of the illustrations are in colors. Copies will be sent free.

Automotive Equipment

GROETKEN VISIBLE MEA-SURING GASOLINE DIS-PENSER

MADINI MARINI NY MARININA MPANTANA NY KAODINA MPANTANA MPANTANA MPANTANA NY KAODINA MPANTANA NY INDRINDRA NA M

This pump is designed to deliver through the visible measuring dome at the rate of 250 gal. per hour. It is equipped with the Groetken Jumbo pump, which displaces a gallon for each three strokes. The pump is strongly made, with deep brass stuffing box and gland, seamless brass cylinder and cup leather treated to withstand the action of gasoline. It has a double screen filter, brass valves and a detachable handle. The outfit is shipped completely assembled.-Groetken Pump Co., Aurora, Ill.

HAMILTON ROLLER BEAR-ING SPRING INSERTS

These consist of a series of roller bearings of case hardened steel which are held in rust-proof sheet steel, die cut cases. They are intended to be placed between the spring leaves and to act as a permanent mechanical lubricant. Before the rollers are installed in position they are fully packed with graphite grease. A set for Fords costs \$4.75; for Chevrolets, \$5 and for all other cars, \$9.75.—Hamilton Mfg. Co., 943 South Grand Avenue, Los Angeles, Cal.

APCO HORN BUTTONS, NO. 9

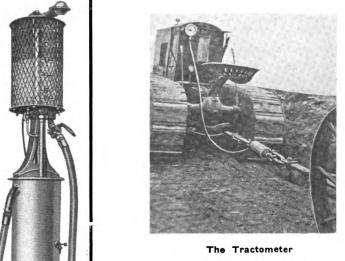
This button is intended to be installed on the gas lever of the Ford, under the steering wheel. In this position it can be operated readily without removing the hand from the wheel. Comes complete and ready for fitting. Price 90 cents.—Apco Mfg. Co., Providence, R. I.

OTWELL ROAD BAND FOR FORDSONS

This band is designed to be applied to the Fordson farm tractor in such a manner as to permit of the tractor being used on the road for hauling purposes. They carry the weight of the tractor with the driving cleats clear of the road surface and yet permit the cleats to function on soft surfaces where traction could not be otherwise obtained. They can be attached or removed in about 20 min.—Tractor Equipment Co., 217 Pacific Avenue, Detroit, Mich.

SE-MENT-OL COUNTER DISPLAY

To properly display Se-Ment-Ol Radiator Cement, a counter display board lithographed in six colors has been designed by



Angsten-Kox spring hanger •

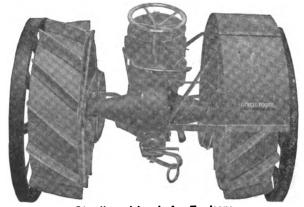


Apco horn button

tken gasoline dispenser

Groetken

Universal ammeter



Otwell road bands for Fordsons

the manufacturers. It is of metal and shows pictorially the leaking radiator and space is provided for the remedy for this condition, which is the cement.—Northwestern Chemical Co., Marietta, Ohio.

THE TRACTOMETER

This is an instrument designed register the actual work which is being performed by a tractor in hauling plows or other implements. It indicates in drawbar pounds the net power delivered by the tractor on a dial placed in front of the operator. It operates irrespective of soil conditions, number of plows, etc. The device is hitched between the plow and the tractor. It is made up of a steel tube with cast steel heads and a coil spring of alloy steel. Made in three sizes; model A, 2500-lb. maximum, \$50; model B, 5000-lb., \$75 and model C, 10,000-lb., \$100. Each equipment is tested before being shipped and comes with instructions for use.—James R. Fouch, Culver City, Cal.

ANGSTEN-KOX SPRING HANGERS FOR FORDS

These spring hangers are made from machine steel, accurately finished and hardened. Riveting is done by a process which insures a smooth, round head guaranteed to be tight. A double inspection is made; one for parallel of parts and the other for firmness of riveting. Front and rear hangers list at 30 cents each and come packed in boxes of 25. These are unassembled. The complete hanger with nuts and cotter pins lists at 75 cents per pair. Assembled in pairs with grease cups, etc., the price is \$1 25 per pair.—Angsten-Kox Co., 5021-5025 South State Street, Chicago.

UNIVERSAL P. V. AMMETER

The feature of this instrument is its suitability for application to all makes of cars, all types and makes of starting and lighting systems and all voltages. It is of flush type, finished in black and with a range of 30-0-30 amperes. Mounting holes are S.A.E. standard and each ammeter comes with a supply of mounting screws, nuts and washers, together with instructions for mounting. — Roller Smith Co., 233 Broadway, New York.



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Sub-Dealer's Contract **Difficulty**

Editor Motor World: I am an enthusiastic subscriber to Motor World and take great pleasure in reading it every week. At the present time I would like to ask your advice on a problem confronting me that is in the courts. following are the general points of the case:

In the year of 1917 I was appointed sub-dealer for a well known make of car in a special territory by the dealer (whose name I do not care to mention). The dealer gave me a contract properly signed for this prescribed territory. performed all the duties called for in this contract, such as keeping a demonstrating car and operating a salesroom and service station and also advertising in the local newspapers as per contract. While this contract was in existence, there were two cars of the same make that I was representing sold in my territory by the sub-dealer who represented the car in this territory before I obtained it. This sub-dealer got these two cars from some factory branch out of the state unknown to the dealer and sold them in my territory.

I had demonstrated to both of these prospects and had spent considerable time with them. They bought these cars from the former sub-dealer on account of getting a discount from the list price. I immediately took the matter up with the dealer and claimed an infringement, but he said he would not be responsible as the cars were not purchased through him. I claim that as long as he (the dealer) gave me (the subdealer) the exclusive right to sell in this territory he should be responsible and protect me in this matter, and also if he (the dealer) did not have the authority to give me the exclusive right to this territory, he was wrong in so doing and should be liable for signing such a contract. I claim that he should make a settlement with me and then make the manufacturer settle with him. I see no reason why I should make any claim against the factory, inasmuch as the contract was signed by the dealer to protect me and, naturally, the dealer had a like contract protecting him, signed by the factory.

I wish you would read this over carefully and tell me if you think I am justified in my claim. Any advice that you can give me, or quote any previous

case that you know of, will be gratefully received .- Hartford, Conn.

Answer-Your right in this matter depends entirely on where the other subdealer secured the car. Of course, you know you could not recover if some customer bought a car and then sold it. From the way you state the facts, I think you are a little severe on the dealer. If the matter is already in court the only thing to do is to wait and see what happens.

Patent Question in Doubt

Editor Motor World: Kindly answer these questions in the law department of Motor World: Is the idea of position patentable? My thought is this: I wish to apply for a patent on a lead pipe or duct. The pipe in itself is of no scientific importance but the position it occupies is of great importance in that it adds vastly to the comfort and convenience to the motorists. Kindly outline the first steps necessary to secure a patent. In engaging a lawyer, would a Washington attorney have advantage over a man in my town?

You may answer these questions in Motor World so other readers may be helped also.—E. E. H., Lodi, Cal.

Answer-It is difficult to say whether or not your idea is patentable from the meagre information you give. If there is an able patent attorney in your town there is no reason why he should not be able to take care of you. If you wish a Washington attorney see the classified columns of Motor World.

A Lien Plan for Ohio

We have no Editor Motor World: lien law in the State of Ohio to our knowledge. Please advise us if we can embody a statement for the owner to sign when ordering work, which in itself would constitute a lien when signed. If this will cover our point, will you be kind enough to draw up a clause which will cover that point as well as the point that the owner authorizes us to dispose of the machine if not called for, say, within thirty days after notice of completion of work. In many cases the owner does not sign this order and the statement should, if possible, be drawn up in such a way that the man who signs for the work automatically becomes authority for the signature to the clause mentioned above.—H. J. B., Cincinnati.

Answer-I agree with you in that I know of no statute giving a lien in Ohio.

On the legal page of Motor World in the issue of Aug. 6, 1919, you will find a copy of a contract that would suit your case with but slight alterations.

If you put a clause in your contract reading "I agree that you may have the right to retain or retake possession of my car in case of non-payment of any bill or bills and sell the same at public auction upon 10 days notice, mailed to me at the address set forth below on this contract," you will protect yourself as well as you can in the absence of a statutory right to a lien. Of course, if the owner does not sign personally you cannot hold him unless you can show that the party who did sign had authority to do so.

North Dakota Tractor Law

Editor Motor World: In one of the May editions (1919) of Motor World appears the article by H. G. Moock, business manager of the National Automobile Dealers' Association, entitled "Those Tractor Laws."

It was stated that those laws have been described previously in Motor World. Can you give me the edition in which the discussion of these laws appeared and, also referring to the state of North Dakota, can you give me citations and titles of those laws?---C. N. S., New York, N. Y.

Answer-Stories relating to the tractor law appeared in Motor World in the issues of April 23 and 30 and May 7. The North Dakota law which you inquire about is as follows:

House Bill No. 113 (Judiciary Committee)
Fixing Time and Manner of Warranty.
An Act fixing the time and the warranty.
and making contracts made in violation
thereof void.
Be it enacted by the Legislative Assembly
of the State of North Dakota:

of the State of North Dakota:

Section 1. Reasonable time to discover defects. Any person, firm or corporation purchasing any gas or oil burning tractor, gas or steam engine, harvesting or threshing machinery for their own use shall have a reasonable time after delivery for the inspection and testing of the same, and if it does not prove to be reasonably fit for the purpose for which it was purchased may rescind the sale by giving notice within a reasonable time after delivery to the parties from which any such machinery was purchased or the agent who negotiated the sale or made delivery of such personal property or his successor, and placing same at the disposal of the seller. the seller.

Section 2. Provisions contrary to preceding section void. Any provision in any written order or contract of sale, or other contract which is contrary to any of the provisions of this act is hereby declared to be against public policy and void.

Approved February 26, 1919.

RETAIL NEWS

EAST

The Gruber Motor Car Co., Scranton, Pa., has opened its new building at Cedar Avenue and Birch Street. It contains show-rooms, repair shop, garage and service station, occupying more than 3500 sq. ft. of floor space.

E. A. Clark Auto Co., York, Pa., has purchased the City Hotel property between Penn and Newberry streets through E. A. Clark and Chester W. Fink, proprietors. After Feb. 1 next the company will take possession.

The Charles C. Conrad Motor Co., Scranton, Pa., has been appointed distributer in this territory for the Apperson car.

NORTHWEST

- A. Meinzer, Amiret, Minn., has sold his garage interests to A. Ingles of Ghent, Minn.
- J. E. Nelson & Bros., Canby. Minn., have sold the Canby Garage on West Front Street to E. W. Bergren, Ford agent at Clarkfield,

Arthur Lindblad and Oscar Larson, Willmar, Minn., formed a partnership and bought the Nelson & Bryant garage business.

Zeno Pauley, Lewisville, Minn., bought out the stockholders of the Lewisville garage.

P. J. Pint, Sanborn, Minn., sold his garage business to A. Mowery of Springfield, Minn.

Earl Burewell and Frank Kummer, Hastings, Minn., bought the J. F. Downs & Sons garage.

Hartley Gray and Hjalmar Anderson, Sturgeon Lake, Minn., bought the Johnson, Skelton & Co. garage.

Reishar & Ekse, Hopkins, Minn., Dodge Garage, dissolved partnership and I. E. Ekse will continue.

The Maxson-Mulick Cadillac Co., Duluth, Minn., has succeeded the branch of the Northwestern Cadillac Co. of Minneapolis. G. A. Maxson, formerly district manager, and Clete Mulick, formerly with the Studebaker Corp. at Minneapolis, are the new agency, and they will have the northeastern part of Minnesota and northwestern Wisconsin.

Paul Richter and Raiph Yoder, Fargo. N. D., bought the A. E. Benson repair shop.

ira Bean and J. F. Sharp, Glenburn, N. D., leased the J. E. Thayer Glenburn garage and electric light plant.

William Bosley and Hjalmar Lavik, Rugby, N. D., bought the Pierce County Garage.

J. J. Moore and Rudelph Lenz, Bowman. N. D., bought an interest in the Lorenz garage.

Joseph Zenger, Fullerton, N. D., has bought the Farmers' Garage.

Hansboro Garage & L'ght Co., Hansboro, N. D., sold the repair shop to J. L. French of Minneapolis, who will operate as a separate institution.

Samuel Gordon, Fargo, N. D., formerly with the Horton Motor Co., has joined the Northern Motor Co. as sales manager, handling the Studebaker and Harroun cars.

The Bush Motor Sales Co., Fargo, N. D., is putting up a new building to be ready Oct. 1 at N. P. Avenue and Fourth Street North, 28 x 140, one story and basement.

P. W. Miller, Fargo. N. D., with R. N. Miller of Grand Forks, N. D., have organized a company to handle the Willys farm light in parts of Montana, North Dakota and Minnesota, at 407 N. P. Avenue. P. W. Miller is president of the Grand Forks Overland Co. and treasurer of the Minot Auto Co., Minot, N. D.

J. B. Wright, Milbank, S. D., has organized the Wright Motor Co. to sell Dodge Bros. cars.

John Trezone, Lead, S. D., has leased the Λ . J. Johnson garage.

Charles Kinkins, Spearfish, S. D., has leased the F. R. Kamman garage.

W. C. Hoellein, Northville. S. D., has bought the Ford service station from A. P. Mustar.

F. W. Miles, Philip, S. D., has bought the shop business of the Trail Garage and will maintain a repair service.

Bryan M. Cowell, Philip, S. D., has bought out his partner, Claude Acker, in the Cowell & Acker tire repair shop.

Fosnaugh & Wilcox, Woolsey, S. D., have sold their garage to D. W. McCoy of Huron, S. D., who has taken possession.

W. J. Neubear, Mobridge, S. D., has bought the North Side Garage.

K. J. Campbell, Sioux Falls, S. D., formerly auditor of the VanBrunt-Overland Co., president and manager for the new Lotta Miles Tire Co., distributing Kelly-Springfield tires, has opened a tire store at Phillips Avenue and Seventh Street, Van Brunt block,

American Motor Sales Co., Sioux Falls, S. D., has been incorporated for \$200,000 by H. F. Bennett, J. H. Blewett and L. L. Trotter.

Andrew McCauley and William Ewold, Sloux Rapids, Iowa, have bought the Hastings garage at Paulinna, Iowa.

L. H. Hartielps, Quimby, Iowa, has bought the Kilburg-Rickabaugh garage at Le Mars, Iowa.

NEW GARAGES

H. O. Hegdal	Belview, M	in n .
P. K. Onstad	.Fergus Falls, M	inn.
Schaffan Auto Co	Fairmont, M	inn.
P. J. Gregerson	Little Falls, M	inn.
T. C. Fordon	Little Falls. M	inn.
Theo. Frye		inn.
		inn.
G. E. Ellingboe		
Ogilvie & Peterson		
Westgaard & Foote	Kerkhoven, M	inn.
Stinson & Lindell	Claremont, M	inn.
Red Wing Battery Co.	Red Wing, M	inn.
O. J. Buckmaster		inn.
Otto Julia		
Stein & Dietzel		
Gilbertson & Hill		
N. P. Nelson		
R. J. Beise		
Moen Bros	Mahnomen, M	inn.
E. H. Holmgren		
Heinecke Bros	Appleton, M	inn.
Herman Schroeder	Elgin, M	inn.
E. L. Cliff	Ogilvie, M	inn.
Peterson Bros. (addition)Alexandria, M	inn.
Werner Nolden (28 x 60))Jordan, M	inn.
G. E. Schroeder	Buxton. N.	D.
O. A. & Anton Stocksta	dMilnor. N	. D.
Evans & Drengsten		
O. A. Paulson		
E. S. Bergstrom & Son.	Dilworth N	D
Moga & Wahl	Scranton N	Ď
Paris & Page (60 x 140)) Mohall N	. D.
Rempher Bros. (50 x 10	M) Zooland N	. D.
Oakes Auto & Machine		
Lahr Motor Sales Co		
Fred Packard		
Konopatzke & Kemmes	et Steele N	. D.
Konopatzke & Kemmes	atSteele, N	. D.
A. T. Swihart		
Zaeske & Moldenhour		
J. E. Miller		
Mohrman Bros		
Havestock Garage		
J. W. Smith (50 x 80)		
Atlee Auspurger		
V. A. Anderson	Clark, S	. D.
A. H. Brown (40 x 130)		
V. D. Wilcox		
M. C. Madson		
Webster Tire Shop		
A. H. Nohlgreen	Watertown, S	. D.
Thompson-Braley Motor	r Co. (150 x 160),	
	Sioux Falls, S	B. D.
Motor Sales Co	Wolf Point, M	ont.
McCann & Booth		
Charles Rader		
G. H. Barth	Philadel	phia
W. Taylor	Philadel	phia
The Atlantic Refining	CoPhiladel	phia



Dort dealers of the Metropolitan district at first conference arranged by
the recently established New York factory branch
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PENNSYLVANIA

Dealers Get Together

Trade Associations in Six Cities Form Co-operative Organization With Paid Secretary and Treasurer

READING, PA., Sept. 12—Seventy automotive dealers met at Arsonia Park, near this city, to-day for the purpose of forming an association which would bind together the interests of the dealer associations located in Harrisburg, Reading, Bethlehem, York, Easton and Allentown.

The meeting was in the nature of a business session and a good old-fashioned get-together with outdoor sports and plenty of "eats." After the lunch was served at noon, the gathering was addressed by the presidents of the various associations. Each told of troubles that had come up in the past that might have been made easier if there had been closer co-operation between the associations in the different cities.

George McFarland, president of the Harrisburg association, told of the activities of his association and how it had benefited the dealers. This association has been particularly active in watching legislation prejudicial to the interests of the automobile trade, and has co-operated with both the Automobile Club and the Rotary Club, so that real results have been accomplished.

Dealer associations in nearby cities also have worked hard to eliminate local evils.

Harry G. Moock, secretary of the National Automobile Dealers' Association,

addressed the meeting and told of accomplishments of the association which had benefited all dealers. He cited instances of things which had been done by associations which would not have been possible had individuals or firms attempted them. He urged support for local, state and national bodies and ended with an appeal for members to the national body, which was responded to generously.

President Satchell of Allentown was in the chair and a motion was made, seconded and carried that an intra-state association be formed. President McFarland of the Harrisburg association was elected president and Satchell elected vice-president. It was decided that the board of directors be made up of two representatives of each association, and that the offices of secretary and treasurer should be held by one man, who should be paid for his services and devote his entire time to the job.

Used Cars a Problem

President Kohler of the Reading association spoke of the used car problem and how Reading proposed to overcome it. They are going to form a corporation, of which the stockholders will be members of the association. All used cars will be bought and sold by this corporation, which will serve as a clearing house. It is proposed that the corporation be

run at a profit and encumbered with as little service work as possible. As far as possible cars will be sold "as is," but should overhauls be necessary the car will be sent to the service station which takes care of that particular make of car. The work of the corporation will therefore be confined to buying and selling and one or two adjusters can attend to the minor adjustments that are to be made on the cars.

Convention Hall for 1920 Show

Several speakers dwelt on the uncertainty of 1920 shows because of the lack of buildings to hold them in. In this connection Satchell told of the formation of the Lehigh Automobile Trade Association, with members from Allentown, Easton and Bethlehem. He said that these cities had subscribed \$25,000 in six minutes to build a hall at Rittersville, between the cities, and that the three communities would hold a combined show in 1920. At present Harrisburg has no suitable building for a show and several other cities in central Pennsylvania are in the same fix.

From Business to Pleasure

After the business meeting wound up. the dealers gathered on the athletic field and in the basement of the clubhouse to show their skill in various athletic pursuits. A ball game was started between teams selected from Allentown and Reading. Andy Redmond of Harrisburg led the quoit team and others who preferred the indoor sports showed their skill on the billiard table and bowling alley. Unfortunately, the weather man got twisted in his signals and the ball game and the other outdoor activities had to be called off. The prizes which had been intended for the winners in the various events were raffled off in the clubhouse.

Members of the board of directors will be elected at once and officers and the board will meet at an early date to draw up a constitution and by-laws and get the association in action as soon as possible.









The camera man only had a chance to snap these few celebrities before the rain descended at the Pennsylvania dealers' convention and outing. Harry Moock's smile is at the right of the trio. At the right Andy Redmond is watching to see how near his quoit came to the peg

AUTOMOTIVE DISPLAYS AT TWO EASTERN FAIRS

(Continued from page 16)

tain number of machines or of interesting a certain number of new prospects who will buy later when they are sold on the proposition.

The prospects will not sell themselves and if a prospect comes into a tent and finds a bunch of men sitting around swapping yarns and smoking cigarettes, he does not know which one to talk to and goes out. Result—another prospect gone. They are all prospects till they buy or till they definitely turn the proposition down.

These fairs are real places to show automotive equipment and the tremendous advantages must not be killed by inattention to the important detail of salesmanship. The fairs are just as important as the automobile shows in a way, and just as much care should be exercised in approaching the prospect.

The Philadelphia Fair

PHILADELPHIA, Sept. 8—Exhibits especially interesting to automotive dealers at the eighth annual Philadelphia County Fair, held at Byberry, included six types of farm tractors twelve makes of motor trucks, three kinds of automobiles, two farm lighting systems, several types of automotive equipment and a very large number of farming implements of all kinds, especially of Oliver and Deere manufacture.

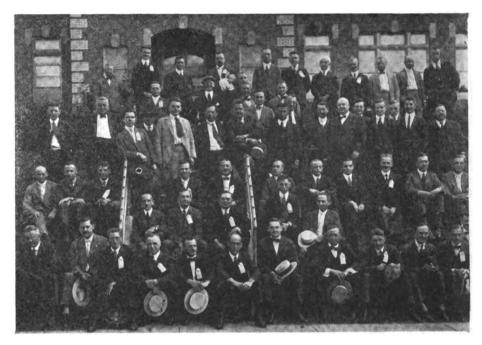
In the opinion of some farmers, a mistake was made by the fair management in not having any specified time for tractor demonstrations, such performances as were given being of the spontaneous sort when enough of a crowd had formed to make the tractor exhibit management think it "worth while" to give a demonstration. There was no special grouping of tractors—they were scattered about the grounds, but in the aggregate drew much attention. There was some plowing with two and three-bottom attachments.

The International Auto-Tractor, because of its novel appearance, being a frame whereon may be mounted a passenger car of any size, through extension rests, the whole being propelled as a unit—the car on the frame, treadmill-drive principle—attracted probably the most attention. It drew a three-bottom Oliver plow.

Salesmen for the tractors and trucks reported numerous inquiries and not more than three or four sales altogether.

The attendance on the first day of the fair was the best—8000. On the second day it dropped to 2000 and thereafter varied, bringing the total attendance to approximately 35,000.

There were automobile and trotting races. Two racers in the automobile contest went through a fence on the east end of the track, Smith, in an Oldsmobile, and Duryea, in a Ford. The machines were wrecked, but neither driver was injured.



Pennsylvania dealers at intrastate convention

EXPECT LARGE SHOWING AT THE TEXAS FAIR

DALLAS, Sept. 13—What is expected to be the largest automobile show ever held in the Southwest will be staged here Oct. 6-19, during the Texas State Fair. All floor space for the exhibit of pleasure and business cars, motor trucks and automobile accessories has been contracted for. There will be this year 80,000 sq. ft. of floor space, which promises to make the show one of the biggest ever held in America.

The show will be conducted by the Dallas Automobile and Accessory Dealers' Association, with S. G. Davis, Oldsmobile distributer, as chairman of the committee on arrangements. He has announced that forty touring car agencies, representing fifty different models of cars, nineteen truck exhibitors and eighteen accessory dealers have contracted for space. An additional exhibit building, with 20,000 sq. ft. of floor space, has been erected.

The following firms will be represented: Burton Routres Co., Hupmobile and Peerless; Buick Motor Co., Buick; Oakland Motor Co., Oakland; William Morris, Inc., Hudson

Any Wide-Awake Dealer Can Do This

The state of the s

R. M. Walker sells cars, trucks and tractors in a typical American city of 12,614 population, and his territory comprises 22,986 people. He started in business a few years ago with \$500 capital; now he employs from \$75,000 to \$100,000. He has adopted no revolutionary methods, but conducts his busines along sane, aggressive lines. Walker's story will be told in next week's Motor World. His system is within the reach of any small town dealer. Read about—and profit by it!

and Essex; McLarty Motor Co., Nash; Keith Patterson Motor Co., Lexington; Trinity Motor Co., Dodge; Rose Motor Co., Chandler; Fosdick-Hawley Co., Haynes and Saxon; Overland Auto Co., Overland; Franklin Motor Car Co., Franklin; Munger Auto Co., Cadilac; J. H. Connell & Sons, Grant Six; S. G. Davis Motor Car Co., Oldsmobile; R. L. Cameron Auto Co., National and Columbia; Security Motor Co., Cole, Mitchell and Dort; Tenison, Bair & Frey Co., Chalmers and Maxwell; J. J. McCook Motor Co., Empire and Patterson; The Tippens Co., Marmon and Packard; Dallas Motor Co., Packard; Three Captains Co., Roamer; W. F. Brittson Motor Co., Reo; Motor Sales Co., Chevrolet; Service Motor Sales Co., Templar; Scarbrough-Latham Co., Elkhart and Texan; Texas Palge Co., Palge; E. M. Reardon, Mercer; Majors Motor Co., Elcar; Briscoe Texas Motor Car Co., Briscoe; Dallas Velle Co., Velle; Diamond Motor Co., Stephens Six; Harvey's Motor Co., Liberty; Bernstein Bros. Motor Co., Case; Stutz Motor Co. of Texas, Stutz; F. L. Shaw Co., Studebaker; McMillan Motor Sales Co., Apperson; Rea Motor Co., Danlel; Moon Auto Co., Moon; Gray-Reardon-Newlin Co., Pierce-Arrow; Little Motor Car Co., Little.

Selling agencies and trucks to be shown are as follows: Burton Routree Co., Master:

Little Motor Car Co., Little.

Selling agencies and trucks to be shown are as follows: Burton Routree Co., Master; Wichita Falls Motor Co., Wichita; Keith Patterson Motor Co., Republic; Trinity Motor Co., Dodge; Fosdick-Hawley Co., Federal; S. G. Davis Motor Car Co., Oldsmobile Economy; Tenison, Bair & Frey Co., Maxwell; Packard Dallas Co., Packard; W. F. Brittson Motor Co., Reo. Motor Sales Co., Chevrolet: Denby Truck Co., Denby; Scarbrough-Latham Co., Taxan; Texas Palge Co., Palge: Texas Harvester Co., International; G. M. C. Co., G. M. C.; Service Motor Co., Service: Texas Indiana Truck Co., Indiana; Dallas Velie Co., Velie; Little Motor Car Co., Little, Accessories will be exhibited by the fol-

Velie Co., Velie; Little Motor Car Co., Little, Accessories will be exhibited by the following firms: Willard Storage Battery Co., Texas Auto Springs Co., Northern Chemical Co., Spencer-Carroll Co., The Sunlite Co., Harrison-Smith Co., Harry Knight, Gillette Tire Co., Universal Tire & Rubber Co., J. Glbson, Western Auto Supply Co., Ferris-Dunlap Auto Supply Co., The Fisk Co. of Texas, C. J. Cleveland, Trinity Tire & Service Co., Southwestern Tire Co., Automotive Supply Co., and The Racine Horseshoe Tire Association.

These firms have taken the entire floor space and, if additional exhibits are to be placed, more space will be arranged under a big tent. Chairman Davis said that the lighting effects of the building will be a feature in the show decoration plans. This work alone, he said, would cost several thousand dollars. There will be no admission fee to the show, each dealer bearing a part of the expense.

News Letters From Trade Centers

MILWAUKEE

Dealer Changes

MILWAUKEE, WIS., Sept. 13-Nash passenger cars and trucks are being written in one selling franchise since Sept. 1, according to announcement made by Rudolf Hokanson, general manager of the Nash Sales Co., 455-459 Broadway, distributer of the Nash Motors Co., Kenosha, Wis. This is one of the most interesting and important developments in automotive merchandising policies since the end of the war.

The Nash Sales Co. is also enlarging its organization to more adequately cover the fourteen states of the Middle West which it controls. George P. Miller, president of the company, moved his headquarters from Madison, Wis., to Chicago, on Sept. 1. Mr. Hokanson's headquarters will remain in Milwaukee. Added interest is lent by the announcement that the Nash Motors Co. has purchased a 25-acre factory site here, where it is understood four-cylinder Nash cars will be produced in large quantities.

The Alfred Reeke Co., 455-459 Broadway, which since April, 1917, has been state distributer of the Nash truck in Wisconsin, and wholesale and retail dealer in the Nash passenger car in Milwaukee and vicinity, relinquished the state truck franchise on Sept. 1 to concentrate on wholesale and retail business in both passenger cars and trucks in Milwaukee and adjoining counties.

The Federal Rubber Co., with main factories and general offices at Cudahy, suburb of Milwaukee, announces that it has established a wholesale distributing warehouse at 325-327 East Water Street. Milwaukee, to handle the Wisconsin and Upper Michigan territory. It will be in charge of J. A. Fitzgerald, manager; S. L. Klarer, office manager, and J. J. Farley, service manager. The retail store formerly conducted by the Federal company at 509 Broadway has been taken over by the Federal Tire & Supply Co., dealer, with a south side store at 457 Eleventh Avenue.

The Schmidt Motor Co., Milwaukee, has taken over the distribution of the Clydesdale truck in Wisconsin. It has headquarters at 528-53? Broadway, the home of the March Motors Co., distributer of the Mitchell, and formerly distributer of the Clydesdale.

The Eckstein-Miller Auto Co., Milwaukee, distributer of the Marmon in Wisconsin, has been appointed distributer of the Grant Six in the same territory. Salesrooms and offices are located in the Plankinton Arcade, and a service "totion at 228 Wisconsin Street.

The Battery Shon, 347 Florida Street, Milwaukee, has changed its corporate style to General Irmition & Battery Co.

The Reo Garage Delavan, Wis., owned and managed by Urban C. Welch, has been pur-

chased by Charles Blodgett of Kenosha, Wis., who took possession on Sept. 5.

The Hamper-Albertson Co., Milwaukee, state distributer of the Liberty Six, has established a service station and branch display room at 219 Farwell Avenue, in charge of Abbey Christensen.

The Van Etta Motor Sales Co., Milwaukee, incorporated for \$25,000 to act as Wisconsin distributer of the Stutz, has opened headquarters and service station at Prospect and North avenues.

The Krueger Auto Co., Cadillac dealer, and the Winnebago Auto Co., Ford dealer, Osh-kosh, Wis. have exchanged garage and service station locations. The change gives the Winnebag company much-needed room at 82-86 State Street.

Harry White, 2002 Hall Avenue, Marinette, Wis., has sold his garage and repairshop to



Edward Schafer and Ely Hamblen, formerly with the Thomas Brown Auto Co., and will do an exclusively repair business and handle storage battery work.

The Milwaukee Cycle & Auto Supply Co has been incorporated with a capital stock of \$20,000 by Ben Nishnefsky. H. Klatte and Robert A. Hess, attorney, to deal in bleycle, motorcycle and automotive parts and equipment.

The Williamson Sales Co.

motorcycle and automotive parts and equipment.

The Williamson Sales Co., Racine, Wis., Dort and Chevrolet dealer, has moved its headquarters from the Central Garage. 408 Wisconsin Street, to permanent quarters at 1502-1506 State Street.

The Richland Center (Wis.) Motor Car Co., Studebaker and Dodge dealer, has also been given the Chandler and Cleveland franchises.

The Jackson Auto Co., Eleva, Wis., is a new Ford dealer.

The Greenbush (Wis.) Garage & Auto Co. has been appointed Paige and Saxon dealer.

The Kroncke Auto Co., Sun Prairie, Wis., has admitted Zed. E. Edison as a partner. The other stockholders are George Kroncke and Edmund Sweet.

CLEVELAND

Gets New Distributers

CLEVELAND, Sept. 13-The Grant Cleveland Co. is the name of the new organization that will put the new Grant car on the market in the Cleveland district. Benjamin F. Hopkins is president of the corporation; A. G. Newcomb is secretarytreasurer, and W. T. McLeran and Burkett L. Williams are vice-presidents. The last two will have active charge of the corporation.

A service station will be opened shortly with a complete stock of Grant parts. and with a department fully equipped mechanically for prompt and efficient work. Sales headquarters will be opened at 5017-5101 Euclid Avenue.

The latest addition to Cleveland's automobile row is E. M. Fillmore, who has succeeded W. G. Eynon as manager here of the Ford assembly plant and sales in northern Ohio and western Pennsylvania. Fillmore came here from Los Angeles.

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The company has acquired a three and one-half acre site on the Big Four Railroad at Maywood Avenue between W. 90th Street and W. 92nd Street. Work is scheduled to start next week, on the construction of the first unit of the plant, which will cost \$500,000. The units will contain 200,000 sq. ft. of floor space when completed.

J. P. Brown is president; W. G. Schmunk, vice-president, and Carl Halle, treasurer. The Superior Avenue plant of the concern will be converted into a service station on body repairs and wheel

NEW YORK

Against Truck Show Site

NEW YORK, Sept. 16-The board of directors of the New York Automobile Dealers' Association discussed at a meet. ing this week the scheduled location of the National Motor Truck Show, in the Eighth Coast Artillery Regiment armory, in the Bronx. No announcement was made as to the action taken.

In the meantime, the metropolitan truck dealers, who are practically a unit against the show site as being too remote to draw crowds the same week as the passenger car show at the Grand Central Palace, are starting a campaign intended to induce action by the N. A. C. C. to hold the show in Madison Square Garden, or another centrally located building. The dealers declare they would rather have the exposition in the Garden, with its limited space, each showing one truck and exhibiting additional models by means of pictures, than to take space in the armory.

The Warren-Nash Motor Corp., which, with the Buffalo Nash Corp., handles distribution of Nash products in New York, northern New Jersey, western Connecticut and northern Pennsylvania, has taken over the retailing of the Nash in New York City, and will open a salesroom on Oct. 1 at 1928-30 Broadway.

Changes in the Saxon Motor Car Co. of New York include resignation of Rodney K. Haines as vice-president and general manager, and the association of John O. Hofbauer, previously with the Paige-Detroit, Lexington and Columbia Six, with the Saxon sales organization.

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MOTOR WORLD

DES MOINES

Truck Trade Tour

DES MOINES, IOWA, Sept. 13—The Des Moines Motor Truck Dealers' Association has set the week of Oct. 13 as the time for the first Des Moines Motor Truck Trade Tour. According to present plans the tour will last six days with visits to approximately twenty-five of the principal cities within the Des Moines trade area, and a much larger number of smaller towns.

It is planned to run about 75 miles a day, covering 450 miles in all. A. H. Kroh, who managed the National Truck Development Tour, will manage the local tour, and L. H. Boydston has been asked to be tourmaster. The Truck Dealers' Association is receiving close co-operation in plans for the tour from the Des Moines Chamber of Commerce, the Des Moines Auto Dealers' Association and the Iowa Motor Trades Bureau.

James B. Weaver, president of the Des Moines Chamber of Commerce, is planning to go with the tour. Pathfinders for the tour will be C. O. Hart, chairman of the Des Moines Motor Trades Bureau; Dean Schooler, president of the Dealers' Association; A. J. Knapp, secretary of the Iowa Motor Trades Bureau; R. H. Faxon, secretary of the Des Moines Chamber of Commerce, and Don T. Chamberlain, secretary of the Truck Dealers' Association.

Five state agents, under direction of an official of the governor's office, are at work in Polk county, of which Des Moines is the county seat, rounding up the motor car owners who have not paid their 1919 license fees. A statewide campaign to bring in the license fee money has been on for several weeks and during that time more than \$200,000 in fees has been collected. At the time the campaign started there were more than 75,000 deliquent owners. The new license fees provided by the last session of the legislature go into effect Dec. 1.

Des Moines Motor Car Co., 611 Cherry Street, has taken the agency for the Hollier.

Frank W. Berlin, for three years associated with the sales organization of the Republic truck, has joined the forces of the Hanson & Tyler Auto Co. and will

travel in central and southern Iowa. Maj. George Polk Hippee, head of the Hippee-States Co., for two years in military service, returned to Des Moines this week. Major Hippee has been in command of a motor transport train in Italy.

The Des Moines Exide Battery Co. is completing its new service station at Thirteenth and Grand Avenue, and expects to occupy it by Oct. 1. Edward Raffensberger, Buick distributer, is president of the concern.

The Hanson & Tyler Auto Co. will receive this week a trainload of eighteen cars of Traffic trucks, which will be distributed among the various Hanson & Tyler branches.

C. R. Sandberg of Des Moines has secured the Ford agency in the vicinity of Dayton, Iowa, and is starting the erection of a brick building to house his business.

B. K. Stears, Creston, Iowa, formerly proprietor of the Sheridan Battery Co., has bought an interest in the Independent Garage and will conduct a service station for the maintenance and repair of starting and lighting equipment. Under the new arrangements the concern will be known as the Independent Garage & Electrical Service Station.

The Griffin-LaCross Tractor Co., Mason City, Iowa, is opening a branch sales office at Ft. Dodge. For the present, the tractor concern will have quarters with the Central Motor Co.

CHICAGO

Motor Club Grows

CHICAGO, Sept. 12-An energetic campaign has been launched here by the new Illinois Automobile Club for the purpose of increasing the membership to at least 5000. A committee of sixteen has been named from the 500 charter members of the organization and the work of enrolling new members has gotten under way to a good start. The campaign is planned for three months.

A limited number of six-cylinder seven passenger touring cars has been offered for sale here by the Shaw Taxicab Co., 3 local concern that has been making taxicabs for its own use for several years. The cars offered are built in the local factory and embody many of the features of the yellow cabs that have made the company so well known here.

J. E. McDowell has been appointed superintendent of the service department of the Magnetic Motors Corp. He has been associated with the company for several years.

The Platke & Beduhun Co, prominent Ford dealers here, have sold out to the J. J. Wright Motor Car Co. and the business will be conducted under the latter name. Wright was formerly manager of the Memphis branch of the Ford Motor Co. and later of the factory branch at St. Louis.

Tracy Holmes, formerly vice-president of the Dan Smith Motor Car Co., distributer of the McFarlan Six, has joined the sales staff of the Marmon-Chicago Co. He is one of the oldest salesmen on the row.

L. B. Southerland has been appointed sales manager of the local Cadillac branch.

The Pellet Magneto Co. has announced the opening of a service station. It will be extended at first only to commercial cars.

The sale of the new Cleveland has been opened by Tom Hay & Son, 166 North Michigan Avenue. Tom Hay, Jr., will be in charge of the Cleveland sales while his father will continue to handle the Chandler at 2517 Michigan Avenue.

PHILADELPHIA

Licenses Take Jump

PHILADELPHIA, Sept. 13-A laboratory and office building to cost \$63,000 will be erected by the Hess-Bright Manufacturing Co. at B Street and the Pennsylvania Railroad, south of Erie Avenue. A second laboratory will be built by the same company at the southwest corner of Erie Avenue and B Street, at a cost of \$10,000.

Up to Sept. 6, the automobile division of the State Highway Department had issued more than 424,000 automobile licenses since Jan. 1. This exceeds by 50,000 the entire number of automobile licenses issued for last year.

The Aviators' Club of Pennsylvania is planning a campaign to raise \$1,000,000 to build a civic airdrome on Elmwood Avenue and Island Road, Philadelphia.

The latest traffic figures for Broad Street show the passing of nearly 17,000 vehicles of all kinds in sixteen hours and 6000 vehicles in or out of the Parkway in the same length of time.

J. R. Stine has been appointed to take charge of the ship-by-truck department of the Firestone Tire & Rubber Co bureau in Harrisburg, Pa.

The three-story automobile sales and service building at the northeast corner of Broda and Wood Streets has been sold by L. J. Bergson to B. F. Hoffman, distributer of Ford cars and Fordson tractors, for \$500,000. The property is a steel, concrete and brick structure in L-shape, with a 36-ft frontage on Broad Street and a depth of 350 ft. on Wood Street. The rear width is 71 ft. The purchaser will occupy the entire building for the motor car and tractor business, after alterations.

Thirty salesmen of the Packard Motor Car Co. of Philadelphia's passenger car department who were victorious in the August selling contest over the motor truck sales division were guests of the company and Lee J. Eastman, president, on an outing at the Hotel Traymore, Atlantic City. Colonel "Jim" Florida, former racing driver, of the Locomobile executive force, but now with the Packard company, was a guest. At the conclusion of the luncheon at the hotel, prizes were presented for individual scores.

Herbert Bros., Philadelphia territory distributers of Chandler and Cleveland cars, have issued a new road map of Pennsylvania and adjoining states, giving mileage from town to town.

The Fairmount Automobile Works, Philadelphia, has opened a salesroom for the exchange and sale of all makes of used passenger cars and trucks, under the management of S. Sherman. Automobile tires, accessories and parts are carried. Repair work, as formerly, is a feature.

The Electric Storage Battery Co. will build a storage and manufacturing structure at Nineteenth and Willard Streets.



WASHINGTON

Needs Show Space

WASHINGTON, D. C., Sept. 13—Whether an automotive show will be held in Washington during the season of 1920 depends entirely upon the ability to obtain a building large enough to house the display. At the monthly meeting of the Washington Automotive Trade Association, held on Sept. 8, the committee reported that at present there is no building available to stage the exhibits.

However, there is a large garage soon to be constructed. This building will be of easy access from all portions of the city.

The plans call for its completion about the first of February. As no suitable building could be obtained for a show, open-house weeks have been held instead for the past few years, each dealer decorating his showroom and adding special features to his display for the week.

Plans are being worked out by the Washington Automotive Trade Association for meeting the used car problem. The idea that seems to be favored is to select some used car dealer who is financially able to handle the problem and enter into a contract with him whereby he will purchase all the used cars of the members of the association. A fair price is to be set on the customers' car and the dealer will procure it at this figure. This price is to be determined by an appraiser. Any mechanical or other work that may need to be done on the car is to be done by the dealer.

The Semmes Motor Co., Dodge distributer, has added a paint shop. Besides being equipped to take care of the product it sells, it also operates a general service station on one of its six floors.

Maxwell and Chalmers are now handled by one firm in this city. H. B. Leary, Jr., who has had the Maxwell account for some years, has taken over the Chalmers line.

ST. LOUIS

Decides Against Fall Show

ST. LOUIS, Sept. 15—St. Louis will have no fall motor car show. It was put up to the members of the St. Louis Automobile Manufacturers' and Dealers' Association as to whether they should hold a show exclusively for closed cars, the replies to the questionnaires showing a vote of 18 ayes and 55 noes. Many dealers contended that they would have no cars to show because of the delivery situation.

A slight improvement has been noted in some quarters in the deliveries of passenger cars, although dealers still are complaining strongly of the inability to make deliveries. Truck deliveries are reported as being slower, due largely to strikes in parts factories. One St. Louis distributer had six trucks for distribution to fourteen dealers.

A change will be made in the Missouri motor car license plates for 1920. Instead of 225879, for example, the plates will show 22-58-79, thus enabling the numbers more easily to be read. The

word "Mo," with the year, will appear under the number next year, instead of at the side.

The offices of M. H. Parson, district manager for the Goodyear Tire & Rubber Co., will be moved from the St. Louis branch, 3010 Locust Street, to the Arcade Building, now nearing completion at Eighth and Pine streets. Parson's territory includes Missouri, southern Illinois, Arkansas, Texas, Oklahoma and Kansas. The offices of Fred Griesinger, manager of the St. Louis branch, will remain at the Locust Street address.

The Motor Accessory Trade Association has just held the first meeting of the fall season. Moving pictures were shown of the recent Ship-by-Truck tour to the Missouri State Fair at Sedalia.

The Barnett Sales Co., distributer of the Graham truck builder and Hercules bodies, has leased the large two-story building covering a lot 75x150 ft. at 2735-37 Olive Street. The company has been operating a salesroom at 2815-17 Locust Street and a warehouse at 411 North Second Street.

Oscar Wilder, representing the Kentucky Wagon Manufacturing Co. of Louisville, Ky., has come to St. Louis to take charge of the distribution of the Dixie Flyer for the American Automobile & Supply Co.

E. P. Musler has been made manager for the Bishop Truck and Tractor Co., Steward and Sandow distributers. He formerly was with the DeLuxe Automobile Co. and the Master Truck agency.

Henry P. Klassen, formerly in the motor car trade in Chicago, is now in charge of sales for Missouri and Illinois for the Four Wheel Drive Auto Co. His headquarters are here.

AT THE INDIANAPOLIS SHOW



Part of the crowd at the car display. This show, recently held in conjunction with the Indiana State Fair, was declared to have been the most successful automobile exposition ever held at Indianapolis

HARTFORD

Against Free Tire Service

HARTFORD, CONN., Sept. 13-There is agitation under way to do away with free tire service. Practically all the agencies selling tires advertise free service not only at the stores but at the roadside as well. Some of the tire men have an idea that they have given away too much in the past, and one, in support of his theory, says that for over a year he provided free air and road service for a regular caller who spent but little, and who when in need of new tires purchased six of a dealer next door. The Fisk branch gave up free service in June when it went into wholesale business only.

The L. & L. Automobile Accessories Corp. has opened a sales office at 135 Church Street. The firm is marketing a one-piece slip-on transmission band for Fords.

The Warren Tire Stores Co. moves on Oct. 1 next door to the new Municipal Ruilding

Credits are being more closely watched by Hartford dealers than ever. A number of garages and sales establishments

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make it very plain that credit accounts are not desired.

The L. & H. Motor Co. has been formed to succeed the Hartford Hupmobile Co. The new organization will handle the Locomobile in addition to the Hupmobile. A new salesroom has been completed at 98 High Street and a service station is being built in the rear. Fred W. Lycett is president of the new organization, Thomas W. Campbell, vice-president: Goodwin B. Beach, treasurer; Charles B. Beach, secretary, and William P. Allen, assistant treasurer. All five men were in service during the war.

William M. Apperson, formerly with the factory sales organization of the Bethlehem truck, has resigned to become manager of the truck department of the Universal Auto Co., Bethlehem and Dia-

mond T distributer.

Richard Elliott has taken over a service station on Willys Street to give service on the Liberty and Dorris passenger cars and Stewart trucks.

L. L. Ensworth & Son have embarked in the automotive accessories field and have opened a wholesale selling department at 34 Ferry Street.

ELABORATE PLANS FOR WATERLOO FALL SHOW

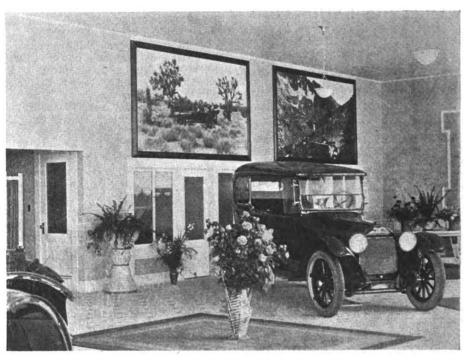
WATERLOO, IOWA, Sept. 13-Officials of the Black Hawk County Motor Trades Bureau are making especial effort to have the Waterloo fall show the most elaborate display of passenger cars and trucks ever made in the state of Iowa. There has been a very heavy demand for space in the building and the present prospects are that it will be necessary to house some of the exhibits in a big tent adjoining the show.

Army Vehicles for Parade

NEW YORK, Sept. 12-As no motor equipment is being brought back from France, nearly 1000 motor vehicles had to be brought here to make up the full divisional equipment of 1294 vehicles needed for Wednesday's parade of the First Division. The Pelham Bay Naval Training Station was used as the reception park, and there the equipment was mobilized, which included:

Ambulances	. 72
Cars-Light passenger	
Heavy passenger	
Reconnaissance	. 39
Staff Observation	.1
Trucks-Light delivery	.10
1½-ton	:
2-ton	
3-ton (Standard B)	373
Machine shop	
Tank	. 2:
Artillery supply	.1:
Artillery repair	
Trailers-Water	
Kitchen	
Cargo	
Motorcycles—Solo	3
With sidecar	24
Bicycles	34
INCICKA	

At the conclusion of the parade, the vehicles started for Washington, where the final appearance of the Division as a fighting unit will take place Sept. 17. About 700 vehicles are making this overland trip to Washington.



A California Salesroom

Mural paintings and flowers are used in decorating the salesroom of the branch at Hollywood, Cal., of the Howard Auto Co., Buick distributer

TRACTOR TRIAL WILL FEATURE FUEL TEST

CENTERVILLE, MICH., Sept. 13-Fuel consumption in plowing and belt power tests will be made as the feature of the coming tractor demonstration to be held here Sept. 23-26, in conjunction with the St. Joseph County Fair. Already twenty machines have been entered for the trials that will be under the supervision of Prof. H. H. Musselman, professor of farm mechanics of the Michigan Agricultural College and the St. Joseph County Farm Bureau.

The fuel consumption tests, which will occupy the second day of the showing, will be conducted along novel lines. Each machine will be allotted a certain amount of fuel, as well as a certain sized tract for plowing. The plowing then will continue until the fuel has been exhausted. The comparative sizes of tracts plowed then will form the bases of the comparative reports. Details of the showing are being arranged by J. M. Wendt, county farm agent, whose office is here.

Sprague Tire Connections

OMAHA, NEB., Sept. 12-Jobbing connections in 26 states as well as export connections have been made by the Sprague Tire & Rubber Co., a new manufacturing organization that has been in operation here nine months. The company has a production of 350 tires and 500 tubes daily. Increased machinery that will practically double the output has been ordered. The company, which is capitalized at \$2,000,000, is headed by R. H Sprague, who formerly was president and manager of the Omaha Rubber

CHANGE PARTS TAX FOR MANUFACTURER

NEW YORK, Sept. 13-Federal taxes upon accessories and parts, including tires and inner tubes, have been so modified by a new ruling of the Commissioner of Internal Revenue that these parts may be sold to manufacturers without the imposition of a tax. However, the parts thus sold must be utilized by the purchasing manufacturer in making a complete car or machine, the tax then falling upon the completed machine.

These interpretations of the new ruling were made public here to-day by the National Automobile Chamber of Commerce and the Motor and Accessory Manufacturers' Association. The change in method of administering the tax follows several conferences between officials of the revenue department with officers representing the two motor organizations.

The excise impost, however, according to the ruling, becomes due when the goods are sold to a dealer or to any person or firm who will not use them for manufacture. In this way, it was explained, the bogy of double taxation is done away with, as in many former instances the part was taxed when made and then retaxed when it was put into a car. This will not be the case in the future.

Triangle Plans 31/2-Ton Model

ST. JOHNS, MICH., Sept. 12-The Triangle Truck Co. is considering the enlargement of its plant to double the present capacity. Plans are also under consideration for the manufacture of a new 31/2-ton model truck.

WISCONSIN EXHIBITION RIVALS WINTER SHOW

New Models Are Displayed and Results Large—In Conjunction With Fair

MILWAUKEE, Sept. 13—The annual fall show of the Milwaukee Automobile Dealers, Inc., held in conjunction with the Wisconsin State Fair, at West Allis, near here, closed to-day as the most successful exhibition of its kind yet held.

For more than six months, Wisconsin. like many other states, has demanded twice as many cars as could be obtained. That this was true was proved by the calls for cars, as evidenced by the showing just closed, from consumers and dealers alike. If price entered as a consideration in the clamor for sales at this show, it was not apparent.

This year's state fair show, which is the real Wisconsin show of the year, as distinguished from the big winter show in the downtown Auditorium, was one of the most important features of a great agricultural exposition. Like the winter show, the fall exhibition is managed and conducted directly by the Milwaukee Automobile Dealers, Inc., which leases the big Motor Hall and necessary adjoining space for temporary structures to accommodate the overflow, from the State Fair management. The M. A. D. charges a nominal admission fee of 10 cents to the motor hall building.

Many Makes Shown

In Motor Hall and the annex, consisting of a huge circus tent required to relieve the congestion, all passenger and commercial car exhibits are concentrated. The third important element of the automotive industries, the tractor, is accommodated separately, in connection with the congregation of farm implement and power machinery exhibits a short distance away. The tractor and implement department, as yet, is directly under state fair board management, but its importance is growing to the point where similar provision for permanent structures, as for passenger cars and trucks, must be made.

Motor Hall and the canvas annex contained exhibits presenting fifty-eight makes of passenger cars, thirty-six makes of commercial vehicles, two makes of trailers, sixty-five displays by as many different distributers and dealers in automotive equipment. The permanent building is 150 x 350 ft. in size, fireproof; and the tented annex had an area of 100 x 250 ft., giving a total floorspace of 77,500 sq. ft., virtually crammed with exhibits. In the six days of the show, more than 185,000 persons paid admission into the big hall.

The fall show of the state fair is one of three main expositional events on the calendar of the M. A. D. The oldest is the winter show. Next comes the fair show, and third is the so-called spring opening in the latter part of April. The

three events form the principal selling efforts in Milwaukee, Wisconsin and Upper Michigan.

While the fall and midwinter shows are generously profitable in a retail way, the fair exposition is primarily a distributer's opportunity to get into close contact with the dealers of Wisconsin and the Peninsula, and, secondarily, a retail harvest at the waning of the touring season. At the winter show, the dealer angle likewise is a big one, but it is more of a retail proposition. The spring opening is purely a local retail affair.

Truck Interest High

This show, just closing, attracted more of the big men of the industry than usual, making it equal to the midwinter show in this respect and in the holding of conferences with dealers by distributers, who thus take advantage of the general "round-up" of their retail representatives in Wisconsin and Northern Michigan. The principal event of this character was the dinner given by the Nash Sales Co., wholesale distributer of the Nash line, for its 300 or more dealers and subdealers.

The Overland Wisconsin Co., Milwaukee; Wisconsin Oakland Co.; March Motors Co., Mitchell distributer; Ford Motor Co, and several other large wholesalers also entertained dealers at dinners, followed by trade conferences.

Extraordinary stress was placed upon the motor truck at this year's show. The principal purpose was to sell the farmer more thoroughly on the commercial vehicle as the hand-maid of the tractor to make the farm of to-day modern and an efficient institution. At the same time, the necessity of selling the truck idea to the smaller business man was recognized. It has not been so easy to merchandise the truck as it has been to market the passenger car output since the cessation of hostilities and the coming of peace.

The feature of the truck sales effort was a "Ship by Truck" demonstration arranged by the M. A. D. and held Thursday afternoon. Approximately 299 trucks, both new and used, were marshaled for a parade that traversed the downtown streets shortly after noon and then proceeded to the State Fair grounds at West Allis, where the procession passed in review before the governor and other notables. The event was in charge of a sub-committee of the M. A. D. show committee and consisting of L. E. Steele, Firestone; P. E. Seibold, Goodyear; W. H. Reese, Sterling; F. R. Robinson, Packard; George J. Suess, Kissel; M. D. Newald, Stewart, and Ray Osborne, Nash. The Mitchell factory band headed

First Showing of Models

New offerings of several factories drew wide interest. These included the new Overland Four; the Cleveland Six, and a new design emanating from General Motors and called the Samson Nine-Passenger Carryall. This car will

BARLEY WILL MAKE OWN BODIES FOR ROADSTERS

KALAMAZOO, MICH., Sept. 13—The Barley Motor Car Co. is equipping a special body department and will hereaster manufacture all special bodies for its roadsters. Eventually the company hopes to expand its body building work to cover the manufacture of bodies for all its models, but for the present it has contracted for its 1920 supply of regular touring car bodies.

The Barley company hopes to average twelve cars daily during September. It will increase its production approximately 50 per cent in 1920.

list at \$750 and will be made at the General Motors works at Janesville, Wis., through the Samson Tractor division.

General Motors also exhibited a new %-ton and 1%-ton truck, and the Samson "Iron Horse," a combination tractor design, in addition to the Model M Samson tractor already in quantity production at Janesville.

W. C. Durant, president of General Motors, and a party of executive associates were present several days. The party included W. C. Sils, general sales manager, Chevrolet; J. A. Craig, president, Samson; W. L. Clark, general sales manager, H. M. Craig, and C. C. Clay. assistant sales managers, Samson.

State Absorbs 50,000 Cars

At the close of the show Milwaukee distributers believed that the 1919 passenger car market of Wisconsin and Upper Michigan was about 50 per cent satisfied up to Sept. 1. Wisconsin's registration to that date was 244,500 cars, which is 54,000 more than in 1918. This does not include motor trucks and represents only cars in private owners' hands. While the absorption of 54,000 cars was considered a remarkable achievement for Wisconsin, the opinion was that 100,000 cars could be marketed in this state this year if the factories could furnish them.

Discussions at the show revealed that the demand for trucks was healthy in all sections of the state and that farmers were manifesting more and more interest. The tractor situation was regarded as satisfactory and the outlook excellent. The big tractor selling season is now opening, with fall plowing just beginning. It is confidently believed there will be no difficulty in marketing all of the tractors allotted to this territory between now and next fall. The experience of farmers with tractors has been so satisfactory that it is stimulating a farm demand for motor trucks, a phase of commercial car merchandising just coming to attention. With \$12,600,000 being expended for permanent highways in Wisconsin this year, and \$18,000,000 to be invested in 1920, the farms of the state become a market for motor trucks of almost equal importance with passenger cars. This, perhaps, was one of the most interesting facts of the fair.



DETROIT TO HOLD A CLOSED MODEL SHOW.

Demand Far Exceeds Supply and Dealers Request Higher Production

DETROIT, Sept. 15—The Detroit Automobile Dealers' Association is now making preparations for staging its first closed car salon. It will be held at the Arena Garden, Oct. 6 to 11. Only closed models will be exhibited.

Twenty-five Detroit dealers and distributers have reserved space, while a number of others have signified their intention of exhibiting cars if their factories can supply them with closed models. The greatest handicap is the uncertainty of the dealers in securing closed cars in time for the event. Dealers representing factories in Detroit are fairly confident of securing suitable models, but those representing companies in other states are very uncertain.

In the Detroit district, dealers unanimously declare that fully 50 per cent of their customers prefer closed cars to the open models. Inasmuch as closed car production represents less than 30 per cent of the total automobile output, there is a great shortage in this line and few dealers are able to make closed car deliveries within 60 or 90 days. Every dealer has a long waiting list and scores of buyers who prefer the closed machine are becoming tired of waiting and are purchasing the open car.

For instance, the Haynes-Detroit Co., local distributer of the Haynes car, recorded four sales one day last week. Three of the purchasers selected open models, while one, willing to wait two months for his delivery, bought a sedan. Had closed cars been available for delivery within 30 days, two of the men who bought the open cars would have taken the closed model, the salesmen stated.

At the Paige sales and service company, seventy prospective buyers have been on the books since spring for closed models. Twenty of these have purchased open touring models, while fifty are still waiting for the Paige closed series, due to appear Oct. 1.

No Show Cars at Detroit

Although the Buick company has been in production on its closed line for several weeks, not a single delivery has been made in the Detroit territory to date.

Detroit salesrooms present a rather desolate appearance. For the most part, the floors are entirely barren of cars. Some dealers have overcome this by placing first-class used jobs on the floor. Now in every case, however, the demand for machines is so great that a car is sold before the dealer has time to place it in his showroom.

A few companies have cars in their windows, but in every instance they are tagged, "Sold."

By not delivering a car until Saturday, when it reaches the distributer earlier in the week, and by running this car into the salesroom for display purposes, these companies are able to get two or three days exhibition service out of each car, providing, of course, that the purchaser does not happen to drop in to speed up his delivery.

Companies not having their 1920 line on display are selling "sight unseen," so to speak. The salesmen are supplied with photographs of the new series and from these photographs the purchaser is making his selection. The demand is so great here that buyers ask few questions. being chiefly concerned in getting an advantageous position on the company's waiting list. Inasmuch as there are only a few closed cars in the city, selection is limited, the purchaser being content to take what he can get.

Want More Closed Cars

Detroit dealers are urging their factories to increase closed car production. They believe that at least 50 per cent production should be closed jobs. Many of the Detroit factories are planning big production increases in their closed lines to meet with the unexpected demand for this type of car, but it will be some time before these will be coming through in sufficient numbers to satisfy the existing calls. Although closed car production is about 25 or 30 per cent of the total output, the factories are having great difficulty in maintaining this schedule, due to a pronounced shortage of closed car bodies. Since the first of the year, manufacturers have had difficulty in getting such bodies and in many cases this shortage has curtailed this produc-



White Plant in Indianapolis

INDIANAPOLIS, Sept. 15—Within a few days D. McCall White and E. C. Howard will move here from Detroit and begin operations on their new car in the plant recently purchased from the Stenotype Co. More than 150,000 sq. ft. of floor space are available.

Cole Plans 6500 Production

INDIANAPOLIS, Sept. 15—During the present year, the Cole Motor Car Co. anticipates a total production of 6500 cars. The present output of the company is twice that of any other year in its history. It manufactures only one chassis, the Aero-Eight, with nine different body styles.

PRODUCTION PLANNED OF 500 CARS DAILY

Expansion Plans Announced for Duesenberg Unit of Willys Corporation

NEW YORK, Sept. 13—Enlargement of the plant of the Duesenberg Motors Corp., at Elizabeth, N. J., to six times its present size for the proposed manufacture of the new Willys Six to be marketed by the newly-formed Willys Corp., was forecasted here to-day by a brief announcement of the building plans. The present plant, with a floor space of about 200,000 sq. ft. will be so enlarged that, by March 1, 1920, all of its units will measure approximately 1,200,000 sq. ft.

The announcement set forth that practically a complete manufacturing plant for cars would be constructed so that early next year a daily production of from 400 to 500 machines might be reached in the new plant. Complete units for the construction of almost all parts of the proposed car will be built at Elizabeth, although it was admitted that many parts and accessories would have to be obtained from outside parts and accessory makers.

The Elizabeth plant will be known, it was said, as the Duesenberg unit of the Willys Corp. The other large units will be the New Process Gear Corp., at Syracuse, N. Y., and the Electric Auto-Lite Corp., at Toledo. The gear company will make transmissions, axles and similar parts for the Willys car while the Toledo concern will supply the electrical equipment. From the information obtained, no further enlargement of these two plants, aside from previously announced plans, now was under contemplation, although expected soon.

The present Duesenberg plant is located on a tract of land about twelve acres in extent. Purchase of additional property has brought this up to some thirty-five acres. Work has started on razing the present buildings on much of this added plot and the construction work of the new plant units will be under way soon, it was announced.

Full details of the proposed construction were not made public. However, it was stated that all buildings would be of concrete and steel and that the main structure would be a four-story building 1400 ft. in length.

Present business of the Duesenberg plant will be continued, it was said.

Export Demands High

NEW YORK, Sept. 15—Export demands for American motor accessories are reaching unexpected limits, according to reports made here by Charles E. Miller, an accessory jobber of this city. Miller has received a number of large orders recently, some totaling as high as \$50,000, for American made parts to be shipped to numerous countries throughout the world.

DETROIT SUFFERS BUT LITTLE FROM STRIKES

Labor Difficulties Due to Walkouts Are Few-Shortage Large

DETROIT, Sept. 13-Officially there are several strikes on in Detroit. Unofficially, there are none, for all of the plants supposed to be in controversies with their workers are running at full force and nearing maximum production again. The strikes simply petered out. Although not declared off by the unions, the men in nearly every instance have returned to work or new workers have been placed in the jobs of those who walked out.

A general foundry strike has been in progress here five months. However, all of the Detroit foundries are running full force. For a while the strike curtailed production severely, but, as the employers remained firm, the unionists gradually returned. The foundry workers supposed to be on strike, but who have returned to work at the various foundries, have now formulated new demands in which \$1 an hour is asked as a minimum wage. A new strike is threatened if the pay increase is not granted.

At the Timken-Detroit Axle Co., the only evidence of labor trouble to-day was four pickets who walked their beats with signs on their backs. This plant has a full force at work. At the employment office door is the sign "No more men wanted." The L. A. Young Industries trouble petered out the same way, the men slowly returning to their jobs.

A few pickets are still on the job at the Wadsworth Manufacturing Co. This company had a \$1,000,000 fire recently that destroyed its finishing department, but the woodworking departments were saved. This has cut Wadsworth production and what men were needed in the woodworking departments were recruited from the departments put out of business because of the fire.

Sheet Metal Workers Out

The McCord Manufacturing Co. experienced slight trouble two weeks ago. It could not be termed a strike inasmuch as it affected but a few departments and was settled in three days. The Wilson Body Co, is another plant in which slight trouble has taken place recently. Here, like the McCord company, only two or three departments were affected and the trouble was quickly remedied. The Bay City plant of the Wilson company, however, was tied up for some time by a strike. Production there is now on the increase, despite the fact that the strike is supposed to be still in progress.

Some of the sheet metal workers are out through the failure of the employers to grant a minimum scale of \$1 an hour. Less than 100 men are involved, however, and production has not been curtailed in the least.

Detroit employers declare the labor situation here was never better, as far as the spirit of unrest is concerned. The automotive industry is now paying the highest wages of its history, the scale in many plants exceeding that of war days.

There is no labor surplus in Detroit; in fact plants here could use thousands of men if suitable housing facilities were available. There is a shortage of common labor in every line of work. Common labor wage scales range from 50 to 60 cents per hour in most of the plants, while the building trades are paying as high as 75 cents per hour for carpenters' helpers and ditch diggers.

Shortage of Skilled Labor

There also is a shortage of skilled mechanics, machinists and tool makers. This, however, is not unusual, inasmuch as this shortage has prevailed for three or four years.

The common labor shortage is due to the heavy exodus of foreign-born workers who are returning to Europe, the bars on immigration raised by most of the European countries and the fact that but little Negro help is coming from the South. The southern states are paying better wages to the negro and he seems more content to remain there.



The war has spoiled a big portion of Detroit's common labor. When skilled men could not be obtained, laborers were placed at lathes and drill presses and scores of other jobs formerly held by skilled men. While they mastered the more skilled trades in a fair manner, they were not expert enough to continue in such positions. These men have had a taste of skilled work with its better wage scales and will not return to the common labor occupations. Hundreds of them are now drifting from one job to another, staying but a short time in each place. This is one of the factors in the excessive labor turn-over situation here.

Labor Turn-Over Less

Turn-over in the plants, however, is showing considerable improvement. It is less than half what it was three months ago, averaging from 10 to 15 per cent in most of the factories. During the war and in the months just following the armistice, the turn-over ranged from 15 to 22 per cent.

CAR THEFT BILL

PASSED BY HOUSE

WASHINGTON, Sept. 15-The House to-day passed and sent to the Senate the bill introduced by Congressman Dyer of Missouri, known as the National Motor Theft Act, which has for its object the prosecution of automobile thieves. The bill has the support of the National Automobile Dealers' Association.

KANSAS CITY HAS A PUBLIC PLANE FIELD

KANSAS CITY, MO., Sept. 13-An airplane field of 92 acres on a level tract across the Missouri River from Kansas City has been leased by a development company to Kansas City for \$1 a year. The field has been approved and accepted by various governmental agencies and Postal and War Departments; airdromes will be installed soon, it is expected. This will be the "public" field at Kansas City. Two private fields also have been opened, one of them for several years.

Reports are current of airplane factories to be located here and numerous enterprises, for handling and repair of airplane equipment, have been announced.

Increase Electric Garage Rates

CHICAGO, Sept. 18-Increased rates for electric car garaging have been raised here by the Bland Electric Garage from \$1.33 to \$1.67 a day. In a letter to patrons, Robert Bland, head of the company, explained the increase was due to the fact that "new standards of living, causing greater demands from labor," must be met. The new rates are published herewith as being of interest to the owners of similar garages. They

Standard service for all cars per month, \$50.00. No allowance for absence unless car is out of garage ten consecutive days. of garage ten consecutive days. Changing pneumatic tires in garage, \$1.00. Olling, greasing, adjusting and repairing will be charged for—labor per hour, \$1.25. Plus cost of material. Dead storage without battery per month. \$10.00. Dead storage with battery per month, \$15.00. Driving—per hour, 75 cents.

TRANSIENTS

Charging batteries during day, \$1.50.
Charging batteries during night, \$2.00.
Wash, charge, polish and storage, \$3.00
and up.
Night storage, 75 cents.
Flush battery, \$1.00.
Wash and polish, \$2.00.
Wash and polish with wire wheels, \$2.50.

Rost Organizes Sales Company

NEW YORK, Sept. 15-H. G. Rost, who has been general sales manager of the Duesenberg Motors Corp. since its organization in 1916, has resigned and has organized a sales company to represent several automotive manufacturers. The new organization will have headquarters in New York with a branch office in Detroit. Prior to 1916, Rost was sales manager of the Loew Victor Engine Co., Chicago, which was the predecessor of the Duesenberg corporation.

STEEL STRIKE WOULD CLOSE CAR FACTORIES

Reserve Stocks Are Low and Plants Could Not Weather Long Walkout

DETROIT, Sept. 12—Detroit automotive industries are wholly unprepared for a general steel strike, which, according to press reports, threatens to close the mills Sept. 22. If the walkout materializes and lasts for a period of more than 30 days, fully 90 per cent of automotive manufacturers in the Detroit district will be brought to a complete standstill.

A canvass of the situation in this district to-day reveals not a single company with sufficient steel on hand to last over 60 days, the greater percentage of the concerns having less than a 30 days' supply on hand. Purchasing agents declare the industry is facing the most serious situation in its history. There is nothing that can be done now to save the day as far as the Detroit manufacturers are concerned but to hope for a settlement before the strike actually occurs.

It is too late now to stock up. Transportation facilities are so poor as to make immediate delivery impossible. There is no steel in reserve in Detroit, the warehouses being practically barren This reserve stock has been depleted greatly within the last month by the Henry Ford interests, which placed large orders with Detroit jobbers. The steel operators here are doing their best to fill up their warehouses again, but are finding this course difficult.

Automotive companies, which in normal times contracted for their year's steel supply in January, delayed buying this year until May and June. The reason for this delay was that a price reduction was predicted when the government fixed a standard price schedule. The companies waited several months to get the advantage of this reduction and the majority of them waited several weeks more, hoping for a further price decrease if the railroad administration. which had protested against the price as set by the government and steel makers, won out in its efforts to bring prices down still further. It has only been within the last three months that the steel situation steadied down and, until that time, few companies contracted for a

When the automotive industries did go on the steel market other steel manufacturing lines followed, so that during the last four months the demand for steel has been greater than the supply. Mills have been unable to produce enough to keep a stock on hand. What they roll to-day they ship to-morrow and this has made it impossible for the automotive companies to stock up in advance.

great amount of steel in advance.

The automobile manufacturer might be able to weather the strike if it lasted less than two months, but the parts maker is wholly unprepared and will be obliged to shut down. The parts maker has been buying from hand to mouth all this year, so to speak. When his scanty supply of steel is exhausted his production must stop and, with the curtailment of the supply of parts, automobile and truck production will stop also.

Detroit manufacturers are carrying less steel to-day than they usually carried in ordinary times. It is customary

for them to have a stock on hand that would last from three to six months. This year the firm with a three months' supply in its warehouse is considered fortunate.

Hudson, Ford and Dodge Bros. are the best protected of any of the Detroit firms as far as steel is concerned. The General Motors units have a 60-day supply on hand. The majority of the other companies would exhaust their present stock within 30 or 60 days if unable to replenish it.

MAIBOHM EXPANSION SHOWN IN SCHEDULE

SANDUSKY, OHIO, Sept. 15—The Maibohm Motors Co. is moving into its new plant which is practically completed next to the tracks of the N. Y. Central R. R. at the western end of the city.

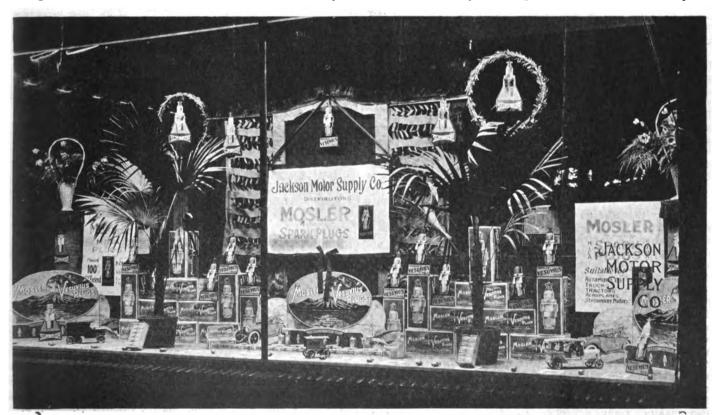
The Allen Waring Auto Co. will act as distributer for New York City and adjacent territory.

jacent territory.

A total of 7500 Maibohm Six cars will be the program for 1920, which is at a daily rate of 25 cars. In addition to the line of touring cars, sedans and coupés the company will make for its New York distributer some special sport runabouts and 4-passenger sport models.

The new factory is 620 ft. long and includes the Maibohm body plant. The installation of machinery is well under way, and the plant is expected to be in full operation before the end of this month.

The moving from the company's present quarters into the new works will be accomplished gradually and without any break in daily production. The production figures are to increase steadily.



This window display, which graced a Pittsburgh salesroom, fairly flashed spark plugs

Digitized by

FREIGHT CAR TIE-UP CAUSES DRIVE-AWAYS

Makers Urge Dealers to Obtain Cars at Factory—Such Deliveries Large

DETROIT, Sept. 13-Detroit automobile and truck manufacturers are urging their dealers to drive away their cars. This is due to the inability to obtain sufficient freight cars, the shortage of which is becoming more and more pronounced. While Toledo and Cleveland plants are encountering the same transportation difficulties, the car shortage is not as pronounced there as at Detroit.

During the last two months hundreds of machines have been driven away, some of them going as far west as Arizona and New Mexico. Cars are being driven to practically every Eastern and Southern state. A large number of Ohio, Indiana and Illinois dealers are obtaining prompt delivery by coming to the factories and getting their cars.

Revert to War Practice

Local railway freight officials say the scarcity of freight cars is due to the heavy crop movement in the West. They also say that under government management rolling stock which has been scrapped has not been replaced. They are thus inclined to blame the railroad administration for the shortage.

The policy of the automobile manufacturers, since the signing of the armistice, has been to discourage drive-aways The repairs necessary to offset the road wear on drive-away cars eats into the profits, and it is often necessary to refinish the car, especially if rainy weather and muddy roads were encountered.

The freight car shortage, however, is forcing a reversion to war-time driveaway policy. During the last two months approximately 50 per cent of all Hupmobile deliveries have been drive-aways. The Columbia Motor Car Co. has sent cars overland as far west as Tulsa, Okla., and on one occasion two cars were driven to San Francisco. The Paige-Detroit Motor Car Co. cannot get freight cars and is shipping overland.

Hudson Has Big Drive

Recently the Hudson Motor Car Co. staged the largest drive-away in its history, when 150 cars were driven from the factory by the Hudson Motor Car Co. of Illinois. On the same day the Walter Bemb Motor Car Co., Detroit distributer for the Hudson and Essex lines, drove 100 cars to various parts of Michigan. The Hudson Co. is shipping a large number of machines on flat cars after securely boxing them in. This company has also sent cars overland to San Francisco, while its Atlanta, Ga., distributer has negotiated several drive-aways this year. The Buick Motor Car Co. and the Dort Motor Car Co., Flint, Mich., are also making r.. any deliveries via the drive-away plan.

Before the threatened general railroad strike, dealers became more impatient for immediate deliveries and, although some freight cars were available, they de-

cided to take no chances on a general railroad tie-up. They came to Detroit with drivers and mechanics and plunged into the drive-away work in great shape. This is another reason for the recent increases of drive-aways.

STUDY CAR INSURANCE TO MAKE NEW RATES

NEW YORK, Sept. 12-Studies looking to new rating basis for motor insurance after Jan. 1, 1920, now are being made by the Society of Automotive Industries, the National Automobile Chamber of Commerce and the Underwriters' Laboratories of Chicago. Announcement of the progress of the research work has just been made here. It contemplates that each manufacturer submit his car to the underwriting laboratory for review and classification, arrangements for which have been made by the Chamber of Commerce. The present practice of basing rates will continue after that date on cars produced up to Jan. 1, as the changes will apply only to cars made after that date.

The basis for fire insurance has been divided into seven groups, each of which has a definite value on a total of 1000 points. These groups, which follow, are further divided into many sub-groups, the determination of each of which will require individual study of the car:

	FUII
Fuel Hazard	
Electrical	
Type of Feed	1
Heat and Flame	
Carburetion	
Feed Line and Accessories	
Miscellaneous	
mistenantous	

Group divisions also have been made concerning protection from collision and protection from theft. Further studies will be made.

YEARLY ROAD FUND NEARS \$300,000,000

Bureau of Roads Report Shows Total—Federal Aid Now Above \$54,000,000

WASHINGTON, Sept. 13-Cash expenditures on rural roads and bridges in the United States for 1918 amounted to \$286,098,193, according to the Bureau of Public Roads, which adds in its report that the most striking single development of the year was the tremendous increase in motor truck traffic. Motor trucks now comprise, declares the Department, five per cent of all motor

During 1918, 11,944 miles of roads were built, 203,556 miles of road maintained and 12,973 bridges constructed, all of this work being accomplished by the various states with the aid of the Federal Government. There is a total of 2,478,552 public rural roads in the United States. This includes 299.135 miles of surfaced roads. Texas, with 128,960 miles, leads, as against Kansas. which is second with 111,052. Ohio, with 31,800 miles, and Indiana, with 31,000 of surface roads, lead oll other states.

The bureau approved Federal-aid statements from the various states for 142,684 miles of road in June, estimated to cost \$25,611,314.99, with the Federalaid allowance of \$11,725,500.61. The June statements bring the total amount of Federal aid applied for, to date, up to \$54,654,984.44.

Illinois has set a new record with two new projects, one for 86 miles of road to cost \$2,321,650 and another for 150 miles to cost \$4,463,511.60. This latter contemplates the completion of the Old National Road.

Seventh Annual Outing of the



Garage men, their families and representatives of the automobil Palos Park, Ill., on Aug. 26. About twenty electric cars competed Rauch & Lang, Borland, Woods and Milburn cars. Two Detroit and 1 hr. 8 min. respectively. Secret running time for gasoline the best decorated cars, and later for a

EXPECT SALES PEAK TO COME NEXT YEAR

Harry G. Moock of Dealers' Association Sees Demand For Higher-Priced Cars

ST. LOUIS, MO., Sept. 13—The automobile dealer business, by a process of natural selection, is falling into the hands of real business men and salesmen and the price cutter and the man of unsteady method is falling by the wayside, according to Harry G. Moock of St. Louis, business manager of the National Automobile Dealers' Association. Moock has returned to St. Louis after a six weeks' trip in the East.

Earlier in the summer he made a month's trip into the middle west, visiting dealer establishments and automotive trade organizations. On the eastern tour Moock visited Indianapolis, Ind.; Cleveland and Columbus, Ohio; Washington, D. C.; Philadelphia; Newark, N. J.; New York; Boston, and Hartford, Conn., with side trips to other points. The earlier trip was in Missouri, Kansas, Iowa, Nebraska and Colorado.

"The dealers everywhere," Moock declared, "are swamped with orders and most of them believe that this situation will continue throughout next year. They expect the peak load of sales probably will be reached in 1920, if the manufacturers are able to deliver on the schedules now provided for. The wide-awake dealer is studying his business, departmentizing it and laying the lines for the elimination of cut throat methods and arranging for co-operative effort.

"The trade generally seems to be of the opinion that the next buying wave will be a demand for higher priced cars. The cheap car is a great factor in selling the public the motor-transportation idea.

Generally an owner's first thought after buying a cheap car is for better highways. After he gets better highways he wants a better car.

"Keen interest is being felt by the dealers in the trade associations. I took every occasion to point out to the dealers the need of such local associations, and I invited the local associations to make use of the facilities of the National."

INCREASED SHIPMENTS OF VEHICLES THIS SUMMER

NEW YORK, Sept. 13—Reports showing the increased shipments of passenger cars and trucks during July and August, over the corresponding period of last year, was made public to-day by the traffic division of the National Automobile Chamber of Commerce. Shipments of 24,897 full carloads of automobiles in July this year against 13,741 in the same month a year ago were shown. The August figures, while incomplete, were announced as indicating a total of 21,000 carloads this year, in contrast with 13,868 in 1918.

Drive-aways from the factories were assuming large proportions at the present time, the report gave out, although there was said to be little change in the situation in regard to freight cars. That a shortage was feared was indicated in the statement that the regional director of the railroad administration was cooperating with the Detroit office of the organization in an effort to keep up deliveries.

Vita Will Build

CLEVELAND, OHIO, Sept. 13 — The Vita Manufacturing Co. has purchased a site at West 117th Street and Madison Avenue on which it will erect a plant for the manufacture of Rogers magnetos.

Chicago Garage Owners' Association



trade in general who attended the outing at Sharpshooters Park, for speed on the way to the park grounds, representing Detroit, electrics won, making the distance of 21 miles in 1 hr. 5½ min. cars was also kept and prizes awarded for the winner. Prizes for series of athletic events, were also awarded

MOTOR CAR PAPER GETS NEW RATING

Federal Reserve Bank Opinion Defines Financial Status for the Industry

NEW YORK, Sept. 15—A ruling that gives a higher rating to motor car paper has just been announced by W. P. F. Harding, governor of the Federal Reserve Bank, in a communication to the National Automobile Chamber of Commerce. The decision came as a result of the attempts of the Chamber of Commerce to have automobiles defined as "readily marketable staples" by the Reserve Roard

The attempt was not successful, as Governor Harding did not make such a definition. However, in the opinion of officials of the automobile body, such paper is given a better standing. The definition of "readily marketable staples" was given out by the Board on July 1 in the following wording:

"A readily marketable staple may be defined as an article of commerce, agriculture or industry of such uses as to make it the subject of constant dealings in ready markets with such frequent quotations of prices as to make (a) the price easily and definitely ascertainable, and (b) the staple itself easy to realize upon by sale at any time."

Governor Harding's decision gives the following opinion on motor paper:

"The Board is of the opinion that the term 'readily marketable staples' does not include automobiles. If, however, the seller of goods (not necessarily limited to readily marketable staples) ships those goods to a buyer who arrangès a banker's acceptance credit, a draft drawn by the seller on the buyer's bank and accepted by that bank comes within the terms of the section, provided that the shipping documents covering these goods were attached. For the purpose of this part of the section, there is no doubt that automobiles are goods and that an acceptance of this character, that is, a draft secured at the time of acceptance by a bill of lading covering automobiles in transit, is eligible for acceptance by a national bank under the terms of the law, provided, of course, that it complies with the other provisions of the Federal Reserve Act and the Board's regulations."

HAYNES WILL BUILD 15,000 CARS IN 1920

KOKOMO, IND., Sept. 13—The Haynes Automobile Co. will increase the capacity output of its plant to 15,000 cars annually, according to plans just approved by the directors. They voted to construct a large new factory building and a forge shop, and to increase the capital stock from \$3,500,000 to \$5,000,000. It is estimated that the normal output will be fifty cars a day.

ARMY ARRANGES SALE OF MANY USED CARS

Auction Will Include 1243 Machines of Various Makes— All Now Unserviceable

WASHINGTON, Sept. 13 — Auction sales of unserviceable army cars, totaling 1243, have just been announced by the Motor Transport Corps. Those to be sold include passenger cars, trucks, ambulances, motorcycles, side cars and bicycles that, according to the announcement, "in their present condition are unserviceable for army use but a number of them can be made perfectly usable by proper repairing."

The announcement states that the War Department has no new or serviceable passenger automobiles for sale at present and it is not anticipated that it will have any new passenger cars available for

sale to the general public.

The first sale will take place on Sept. 18, at Camp Holabird, Md., where 295 unserviceable vehicles will be auctioned. It will consist of 56 passenger cars, including Studebakers, Hupmobiles Overlands, Liberties, Reos, Buicks, Grants, Paiges, Velies, Hudsons, Maxwells, Loziers, Fords, Packards and Chevrolets; five light delivery trucks, principally Fords; 93 two-ton trucks of various makes; 99 Nash trucks, 27 three- to five-ton trucks of various makes; eight motorcycles, and five Excelsior solo and side cars.

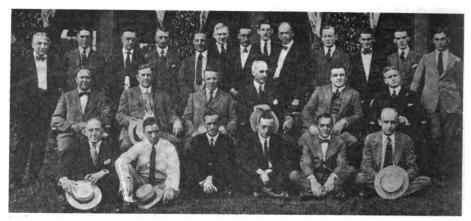
Another sale will be held Sept. 19 and 20 at the Army Supply Base, Norfolk, Va., and at Camps Hill and Stewart, near Newport News, Va. The Norfolk sale will include the Reo, Kissell Kar, Studebaker, Paige and Ford passenger cars; 38 trucks of various sizes and types, among which will be found Pierce-Arrows, Maxwells, Studebakers, Nashes, Reos and Fords, and two motorcycles. The sale at Camps Hill and Stewart will include 25 passenger cars, consisting of Chalmers, Studebakers, Oldsmobiles, Maxwells, Buicks, Reos, Oaklands, Overlands, and Fords; 74 trucks ranging from light deliveries to five-ton types, and consisting of Oldsmobiles, Nashes, Pierce-Arrows, Buicks, Republics and Fords.

One two-ton truck will be auctioned at Camp May, N. J., on Sept. 13, and one Ford passenger car at Omaha, Neb., on Sept. 19.

Many other sales have been arranged at many army camps throughout the country, the numbers of cars to be offered varying. Information concerning them may be obtained from the Motor Transport Corps at the camps.

Wilmington Licenses 518 Garages in Eight Months

WILMINGTON, DEL., Sept 11—In Wilmington for the past eight months permits have been issued for 518 garages, some public and some private, more than two a day. The record for August was 132.



The sales and executive staff of the Standard Woven Fabric Co., Walpole, Mass., met at the factory recently for the annual sales convention. The picture above shows them at a moment when business was forgotten

FIRESTONE INCREASES STOCK TO \$75,000,000

AKRON, OHIO, Sept. 15—The Firestone Tire & Rubber Co. will increase its capitalization from \$15,000,000 to \$75,000,000. A resolution authorizing this increase passed without a dissenting vote at the recent annual meeting of stockholders. The company, however, will sell only \$10,000,000 of preferred stock.

Firestone sales from Nov. 1, 1918, to Sept. 1, 1919, were \$69,475,197.14, as against \$63,821,046.67 for the same period last year or an increase of 9 per cent. This increase must be considered along with the fact that prices were reduced from 15 to 32 per cent. Sales in August, 1919, were the largest in the history of the company. An increase over August of last year of \$2,456,994.30 or 31 per cent was recorded.

Plans for the immediate construction of a \$400,000 mechanical building were made public. This will be located in the rear of plant No. 2. Plant No. 2 was designed for a capacity of 10,000 tires daily, but with additional equipment already ordered at a cost of \$1,500,000, its capacity can be increased to 16,000 tires daily. Plant No. 1 will be converted from fabric tire manufacture to cord tire work.

Addition for Moline Iron Works

MOLINE, ILL., Sept. 12—The purchase of the Moline baseball park will enable the Moline Iron Works to build an addition to its present plant which is operated at Second Avenue and Second Street, under the name of the Cooper Saddlery Hardware Co.

The plant will be continued in addition to malleable foundry, 110 x 400 ft and an enameling and finishing building, 110 x 360, of steel and glass, with cement tile roofs, to be erected at a cost of about \$200,000. Approximately 250 men will be employed at the new plant. It is expected that operations in the new buildings will start by the first of the year.

The Moline Iron Works make castings for cars, trucks, tractors and agricultural implements.

NASH TO BUILD DUPLICATE PLANT AT MILWAUKEE

MILWAUKEE, WIS., Sept. 13—The Nash Motors Co., Kenosha, Wis., has completed the purchase of nearly 46 acres here, and expects to start work soon on the construction of a branch factory. Although few details of the projects have been officially announced, it is said the new works will be devoted exclusively to the production of a new four-cylinder passenger car which will be brought out shortly after Jan. 1.

P. W. Twyman, who was general manager of the Interstate Motor Co., Muncie, Ind., will be manager of the new Milwaukee plant.

Will Sell Master Carbureters

CHICAGO, Sept. 12—The Master Sales Corp. has been incorporated to distribute Master carbureters in Illinois, Indiana and Iowa, with headquarters at Chicago. Officers are: William Tesnow, president; C. J. Abbott, vice-president and sales manager; Edward J. Morse, secretary and engineer, and A. T. Herman, treasurer.

Paige Distributer Organized

TOLEDO, Sept. 12 — The Paige-Ohio Co. has been incorporated with a capitalization of \$250,000 to take over the distribution of the Paige line in northern Ohio. Headquarters of the company have been opened in Cleveland and a branch has been established here.

S. A. Pfau of Youngstown is president of the new concern. H. E. Slagle is general manager of the Toledo branch. Mr. Pfau has been a Paige distributer in Youngstown for the past 9 years. He is president of the Interstate Auto Co.

Massachusetts Enforces Mirror Law

BOSTON, Sept. 13—The new law requiring all taxicabs, motor trucks nd commercial vehicles to be equipped with mirrors went into effect this week in Massachusetts. It does not yet apply to passenger cars. In another year mirrors will be required on all vehicles.

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COMING EVENTS

Races, Contests and Tours	Streator, IllSept. 9-12Northern Illinois Tractor & Truck Assn. W. S. Peter-
Sheepshead Bay, N. Y. Sept. 20	man, Manager. Centreville, MichSept. 23-26St. Joseph County Farm Bureau, Prof. H. H. Musselman, Professor of Farm Mechanics at Michigan Agricultural College, Manager. Lincoln, EngSept. 24-27Society of Motor Mnfrs. &
Paris, FranceJuly, 1920Grand Prix Race, Sport Commission, Automo Club of France. Yerington, NevOct 30Tractor Demonstration, L	bile Agricultural Vencies, in
County Farm Bureau. Meetings	Ottawa, OntOct. 14-16Tractor and Farm Machin- ery. Experimental and Booth Farms, Inter-Pro-
New Orleans, LaSept. 21-25Fifteenth annual conven	vincial Plowing Match and Tractor Demonstration.
of Associated Advertis Clubs of the World. Philadelphia, PaSept. 22-24Annual Convention, National Association of Purchase	L. Davis, County Agricul- tural Agent.
Agents, Bellevue-Stratf Sheffield, Eng	ord. Shows
called by Chamber of Comerce of U. S. to come with foreign delegates. Denver, ColOct. 1Directors' Meeting. National Control of Comerce of U. S. to come with foreign delegates.	nfer Cincinna 5 i Automobile Dealers' Affan, H. K. Onal Shockley, Manager.
Automobile Dealers' A. ClevelandOct. 1-4Eighth Annual Safety C gress of National Sai	ssn. Springfield, MassSept. 15-20Eastern States Exposition. J. O. Simpson, General Man- lety ager.
Jackson, MissOct. 9-10Second Annual Convent	New York CitySept. 24-Oct. 3. New York Electrical Exposi- tion, Electric Cars, Trucks
Louisiana-Mississippi A Atlantic City, N. JOct. 14-17Twenty-fifth Annual Conv tion, Marlborough - Bi heim, National Hardw	en- Central Palace. len- Detroit, MichOct. 6-11Closed Cars: Detroit Dealers' rare Assn., Arena Gardens.
Association of the Un States. ChicagoOct. 15-17Twenty-sixth Annual C yention of the Natio	ited Pittsburgh, PaOct. 11-18 Fall Show. New York CityOct. 15Opening of International Farm Tractor & Implement Exchange, Grand
Implement and Vehic Assn., Congress Hotel. Washington, D. COct. 29First Annual Labor Conference provided by Pe	Chicago, IllNov. 3-8Business Exhibit of Automo- fer-tive Equipment Assn., Me-
Treaty. Chicago, IllNov. 3-8Convention, Automo	New York CityNov. 16-23Automobile Salon, Hotel Com- tive modore.
Equipment Assn., Medi Temple. Nov. 7-8Meeting of National Assn	
Detroit	New 10th CityJan. 8-10 Eighth Count Artiflery Ar-
and Exhibition. ClevelandDec. 3-5Ohio Automobile Tr	Accessories. ade Chicago, IllJan. 24-31Coliseum, Cars: Drexel Pa-
Assn., annual conventic Louisville, KyFeb. 9-13Seventeenth Annual Conv tion American Road Bu ers' Assn.; Tenth Ameri Good Roads Congress :	en
Eleventh National Go Roads Shew. San Francisco, CalMay 15-20Seventh Annual Fore	e d (Commercial Cars and Accessories
Trade Convention.	Business Club. F. R. Bald- win, Mgr.
Foreign Shows	Kansas City, MoFebruaryFifth Annual Tractor Show, Kansas City Tractor Club, Guy H. Hall, Manager.
Foronto, CanAug. 28-Oct. 6Cars, Trucks and Tract Airplanes and Motor Bo in conjunction with Ca dian National Exhibition	ery, Forum, Wichita na- Thresher-Tractor Club.
Enristiania, NorwaySept. 10-24Exhibition of Americ Goods at Trivoli Exhi tion Grounds.	an Louisville Automobile Dealers' Assn., First Regi-
Paris, FranceOct. 15Grand Palais — Internatio Automobile Manufactur Congress.	
ondon, EngNov. 7-16Olympia Exhibition, Soci of Motor Manufacturers Trades.	ı &
Thristchurch, N. ZNovemberFirst National Motor. Blasgow, ScotlandJanuaryScottish Motor Exhibition fanchester, EngFebruaryNorth of England Motor I hibition.	Takima, WashSept. 15-20Cars, Trucks and Tractors.
delaide, AustraliaMarchAll Australian exhibition motor vehicles, airplan engines and automot	or O. A. Nash, Asst. Gen. 188, Manager.
ondon, EngMarchMotor Boat, Marine and S	St. LouisSept. 18-21 Motor vehicles, St. Louis ta-
tionary Engine Exhibition of MayCommercial Vehicles Exhibition Olympia.	bi- Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors.
tuenos AiresApril 3-May 4. Exposition of U. S. Mar factures.	Pueblo, ColSept. 22-27Cars, Trucks and Tractors.
Tractor Demonstrations	J. L. Beaman, Manager. Salem, OreSept. 22-27Cars, Trucks and Tractors. Dealers Motor Car Assn.,
Angeles, CalSeptemberRegional Tractor Demo stration under the auspi of the National Impleme	on- ces ent M. O. Wilkins, Mgr. M. O. Wilkins, Mgr. County Agricultural Asen.
& Vehicle Assn.	Continued on page 48)

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CHANGES In the Trade

George L. Sullivan, for three years advertising manager of the Fisk Rubber Co.. Chicopee Falls, Mass., has resigned to become associated with the J. Walter Thompson Co., advertising agency, New York,

Miss M. G. Webber, a member of the advertising department of the Fisk Rubber Co., Chicopee Falls, Mass., and for the past three years in charge of the outdoor advertising of the company, assumes the position of advertising manager for the Fisk company, succeeding George L. Sullivan, who resigned.

Dan McAvoy has been appointed manager of the Omaha branch of the Pennsylvania Rubber Co., succeeding O. A. Olson. For the past year he has been traveling representative of the company in Nebraska and lowa.

William A. Cahill has been placed in charge of the used car department of the Buick Boston Co., Boston. He was formerly with Chalmers and Packard.

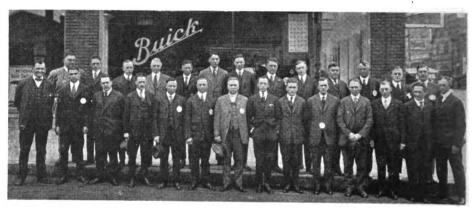
- J. McMahon is now in the employ of J. F. Stotts, successor to the Oklahoma Oil & Auto Supply Co., Ardmore, Okla., as sales The company is an automotive manager. jobber without any retail store connection.
- R. E. Wedekind, Cleveland, former Chevrolet branch manager here, has been made district sales manager of the F. E. Stuyvesant Motor Co., distributer for northern Ohio of the Hudson and Essex. In this capacity he assumes control of all wholesale sales in the Stuyvesant territory outside of Cleveland.

Erwin L. Maione has been appointed Cleveland district representative of the Ness Steel Corp., Baltimore, Md. His present headquarters will be the Cleveland Athletic Club, Cleveland.

L. H. Earle, who was released from service as captain in the Ordnance Corps last spring. has been appointed eastern representative for the Buda Co., Harvey, Ill., with offices at 1216 Æolian Hall, 33 West Forty-second Street, New York. While in serv.ce, Earle managed the government inspection of tractors and tanks. He was formerly connected with Continental Motors Corp., first as designing engineer and later as sales manager. Previous to that he was chief engineer of the Abbott Motor Car Co., and with Chalmers at Detroit. Just before entering service he was in business for himself as Earle & Boggs, Inc., manufacturers' representatives.

Charles C. Howison has been appointed New England representative for the Hudson Motor Specialties Co., Philadelphia.

William H. Huff, who has been with the Detroit Pressed Steel Co. for some time as



Seventh Annual Convention of Buick and G.M.C. Dealers in Washington

The thirty-two Buick dealers of western Washington meet in annual convention at the Seattle headquarters of the Eldridge-Buick Co. for a twoday session

assistant sales manager of the frame division, has been appointed advertising manager for both frame and wheel divisions of the company.

C. C. Newburn of Milwaukee has been promoted to assistant sales manager of the Parker Motor Truck Co., 606 Linus Street. Before joining the Parker organization a year ago, Mr. Newburn was for twelve years associated with the automotive industries, first with the Morgan & Wright Co. and later with the sales departments of the Service, Diamond T, Corliss, Panhard and Traffic trucks,

L. P. Lessard, formerly assistant sales manager of the Parker Motor Truck Co., Milwaukee, manufacturer, has accepted a similar position with the M. D. Newald Co., Milwaukee, distributer of the Stewart truck in Wisconsin.

Frank S. Thorpe, who has been traveling for the B. F. Goodrich Co. with headquarters in Chicago, has been appointed manager of the South Bend branch of the Goodrich company. He was formerly with Harry Newman Company, Inc., Chicago, and the L. Markle Co., Chicago distributer for the Studebaker. Mr. Thorpe will have ten counties in Northern Indiana and Southern Michigan.

L. F. Worth has rejoined the B. F. Goodrich Co. after 26 months in service, and will be assistant manager of the South Bend branch.

William J. Hartman, for many years at the factory of the Advance Rubber Co., New York, has been placed in charge of the company's branch just opened at 721 S. Olive Street, Los Angeles, Cal.

Maj. George R. Wadsworth has been elected second vice-president of the United Aircraft Engineering Corp. He is in charge of the transportation development work, which includes the establishment of municipal landing fields and air routes in all parts of the country for passenger carrying and light express. During the war he was chief engineer of the naval aircraft factory at Philadelphia.

Major Wadsworth and Chance M. Vought have been elected directors of the United Aircraft corporation.

John Kelly, for nine and a half years New York district manager of the Edison Storage Battery Co., has been appointed general sales manager of the company with headquarters in Orange, N. J. This promotion follows his appointment on July 1 as assistant general sales manager. His previous experience was with the Westinghouse Storage Battery Co.. the Firestone Tire & Rubber ('o. and the Swinehart Tire & Rubber Co.

- J. J. Wright, formerly manager of the Memphis branch of the Ford Motor Co. and later of the St. Louis Ford branch, bought out the Platke & Beduhum Co., Ford dealer in Chicago. The business will be conducted as the J. J. Wright Motor Car Co.
- C. J. Brethaur, formerly with the Commerce Motor Car Co., Buffalo, N. Y., later with the Walden-Shaw Taxi Co., Chicago, has just been made production manager of the Olympian Motor Car Co., Pontiac, Mich.

John F. Porter has joined the Cadillac Motor Car Co. as comptroller, succeeding Herman Kinnee, who has been advanced to the position of assistant to the general manager. Mr. Porter comes to the Cadillac company from the Champion Ignition Co., Flint, where he was formerly comptroller.

A. A. Schneider, formerly with the raw materials department of the Midvale Steel & Ordnance Co. and the Cambria Steel Co., has been appointed manager of the newly created raw materials division of the American Steel Export Co. He has recently been released from service as lieutenant of field artillery.

COMING EVENTS

(Continued from page 47)

Waterloo, Iowa......Sept. 22-28.....Automobile show, in connection with Waterloo Dairy Cattle Congress; Black Hawk County Motor Trades Bureau, G. V. Orr, Secre-Bureau, G.

Kansas City, Kan.....Sept. 24-Ost. 4. Cars, Trucks and Tractors.
Muslogee, Okla.....Sept. 29-Oct. 4. Cars, Trucks and Tractors.
Meridian, Miss.....Sept. 29-Oct. 4. Cars and Tractors. A. H.
George, General Manager.
Chattanooga, Tenn...Sept. 29-Oct. 4. Chattanooga Auto Dealers'

Ass Brockton, Mass.....Sept. 30-Oct. 3..Cars.

Lancaster, Pa.......Sept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. C.....OctoberColumbia Automobil ers' Assn.
Northampton, Mass....Oct. 1, 2, 3....Three-County Fair. Automobile Deal-Fair, S. E. Northampton, Mass...Oct. 1, 2, 3....Three-County Fair. S. E. Hickman, Mgr.

Dallas, Tex....Oct. 6-19....Cars, Trucks and Tractors.

Texas State Fair.

arieston, W. Va....Oct. 15-18...Tractor Demonstration, Kanawha County Fair.

Raleigh, N. C....Oct. 20-25...Cars, Trucks and Tractors.
Shreveport, La...Oct. 22-27...Cars, Trucks and Tractors.

to uniting, S. C...Oct. 27-21...South Carolina State Fair Ft. Dodge, Ia......OctoberFall Motor Show, District Fair Grounds.

Jacksonville, Fia......Nov. 22-29.....Florida State Fair and Expention. B. E. Hanadourds Ver. Digitized by Gogle

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Model	OLDSMOBILE 45-B 8-2	OLYMPIAN	OVERL.	06	M-43	PACKARD	PAIGE	11	PATERBON	PEERLESS	PIERCI	38	PICOT September 1	PREMIER	REO	REVERE	ROAME	W XOX	Y-18 RAVER	STRIP.	Sir-39	STATE OF THE PERSON IN	19 19 STANDA	BTANLEY 8	STEARNS	BTEPH	STODE		910	TEMPLAR	VELIE	WESTC A-48		OLVIN.	
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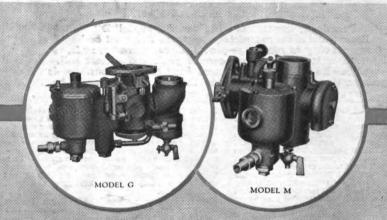
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Volume LX Number 13

PUBLISHED WEEKLY AT 239 WEST 39th STREET NEW YORK, SEPTEMBER 24, 1919

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It can be no mere accident that the machines which most uniformly render such service as above defined, are—almost without exception—fitted with magnetos and lighting generators carrying moreof. Bearings.

Be Sure. See That Your Electrical Apparatus Is "NORMA" Equipped.

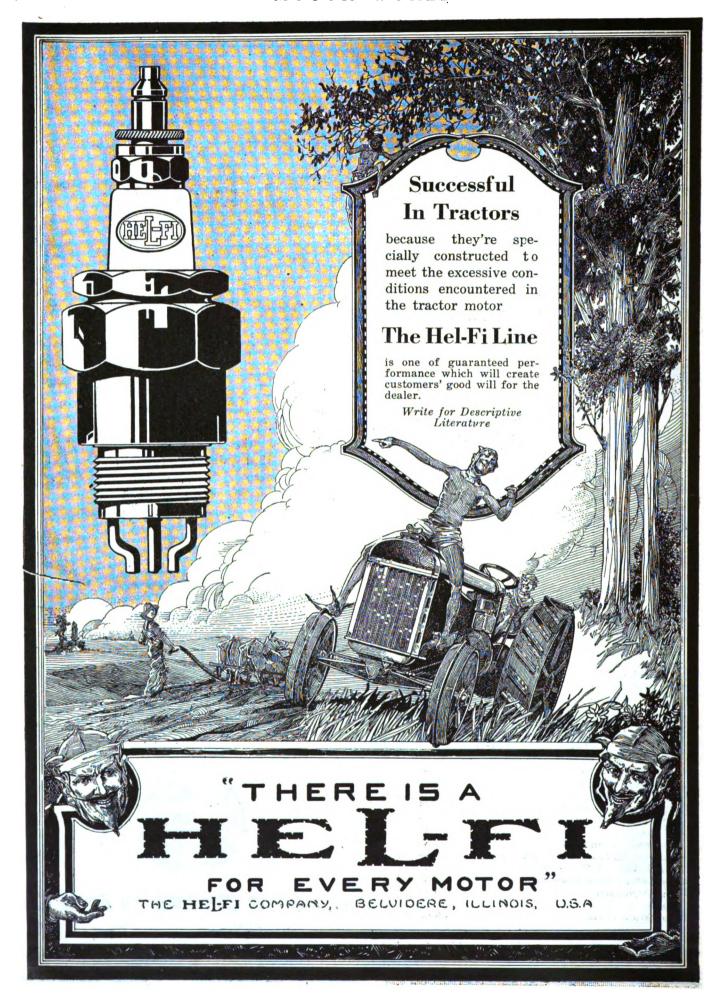


THE NORMA COMPANY OF AMERICA

1790 BROADWAY

NEW YORK

Ball, Roller, Thrust and Combination Bearings



Why Are They Interested?

Are subscribers to business papers interested—and is their interest worthy of the keenest follow-up by the manufacturers of automotive products?

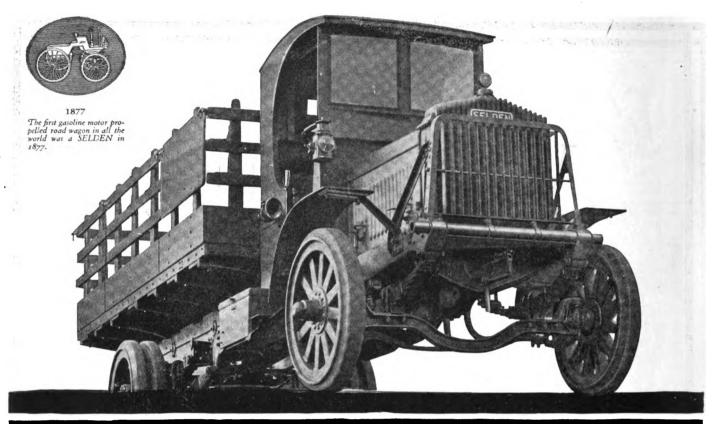
The following from Henry C. Buchanan, a dealer in Kingston, Idaho, under date of September 10, is at least a partial answer to the question:

"My reason for subscribing to your paper is that I am a dealer and garage owner. Another is that it is worth many times its price, as it is the first one to spring something new.

"Another is if we want to buy anything Motor World tells us where to buy at best advantage.

"My subscription ran out while I was in France and almost my first act upon return was to renew. We will stick."

Multiply Henry C. Buchanan by more than twenty thousand and you will have some appreciation of the size and character of MOTOR WORLD'S subscriber clientele.



The NEW 3½ Ton ("A" Series) WORM Drive Selden Truck

The widespread, spontaneous acceptance of the 1½ Ton Model in the "A" Series of SELDEN TRUCKS, evidenced by hundreds of orders for this remarkable achievement in motor truck construction which we received from manufacturers, farmers, retail methods, in all sections of the country and the voluntary expressions of phenomenal performances of this model of mechanical perfection which come to us daily, prompted us to add a bigger, more powerful model to this same "A" Series.

We now offer for the consideration of truck operators MODEL

3½-A-a 3½ Ton WORM Drive Selden Truck of the highest quality construction that it is possible to build into a truck of this capacity for the price at which it is sold.

Increased manufacturing facilities enable us to build unusual value into the Selden "A" Series of motor trucks. These models are possessed of the same rugged construction, the same gigantic powers of endurance and are built on the same sound engineering principles which have earned an enviable reputation for SELDEN TRUCKS the world over.

Ask the Selden dealer in your locality, or write us, for Specifications of Model 31/2-A—the heavy duty truck that meets the needs of to-day for HIGH QUALITY construction at MODERATE COST.

DEALERS

The addition of the "A" Series of Trucks to the Selden Line offers an unusual opportunity to you for sales at this time. This new series offers big truck value at an exceedingly moderate price. And the SELDEN "A" Series makes its appearance at an opportune time—at a time when truck buyers have been awaiting

the appearance of just such models as the "A" Series. If SELDEN TRUCKS are not at present being distributed in your territory, this is a good time to apply for the Selden Line. The SELDEN "A" Trucks are sure to be big sellers. Enjoy the profits on their sale in your territory.

SELDEN TRUCK CORPORATION, Rochester, N.Y., U.S.A.

Selden Motor Trucks

Vol. LX

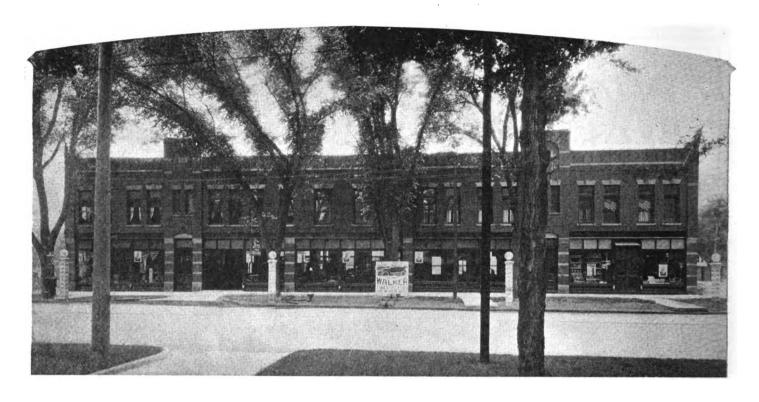
New York, U. S. A., Wednesday, September 24, 1919

No. 13

"START SOMETHING!"



Digitized by Google



The Why of a Small Town

BUSINESS THAT PAYS

WALKER

7 ALAUN

OF

BATAVIA

1. Studies His Market. 2. Advertises Extensively.

3. Employs Specialists for Special Work.

- 4. Gives Personal Attention to Each Department.
- 5. Has a Car Salesman Who Sells Nothing but Cars.
- 6. Has a Tractor Salesman Who Was Born on a Farm and Trained in a Country Store.
- 7. Has a Tractor Service Manager With Manufacturing and Operating Experience.

HEN a business grows within a few years from a basis of \$500 to one of \$100,000 working capital, it is self-evident that the man at the desk has been working—and thinking.

Such a business is conducted by Raymond M. Walker in Batavia, a typical American small town, with residential, commercial and manufacturing interests centered in an agricultural county—Genesee of New York.

The figures are taken from Walker's books. They prove that a man need not be a small merchant because he lives in a small town.

Walker started out selling cars. Later he took on trucks. Now, with power farming destined to revolutionize the country's rural life, he is getting in on the ground floor as a dealer in tractors.

Walker has succeeded because

- 1—He studies his market.
- 2—He advertises extensively.
- 3—He employs specialists for special work.
- 4—He gives his personal attention, in an intimate supervisory way, to every department of his business.

His system works out like this:

STUDYING THE MARKET—Surveying his territory, which, including Batavia and the surrounding country, comprises 22,986 persons. Walker finds out

Who needs cars, trucks and tractors.

Who is financially capable of buying them.

A thorough knowledge of the community, which Walker keeps fresh by "mixing" with his neighbors, helps to solve the first problem. The second is simplified by reference to tax assessment records, particularly of land owners.

ADVERTISING-Walker uses the local newspapers,

Is This YOU?

THERE are 506 communities in the United States with populations ranging from 8,000 to 25,000. This means that several times 506 dealers in cars, trucks and tractors—of whom you may be one—can apply to their businesses some of the methods which enabled Raymond M. Walker, of Batavia, N. Y.—a town of 12,614 persons—to build up his working capital, in a few years, from \$500 to \$100,000. Walker's story will help YOU. Read it!

mediums that go into homes throughout the county, that are read and relied upon by his potential prospects.

He maintains a sales and show room that attracts attention and invites inspection—no litter, such as disgraces some small town and roadside garages, in his windows.

He conducts tractor demonstrations. Because he is "only a local dealer," Walker has not shied at the expense of showing the tractor to a region where power farming has just begun to get a foothold. At the Genesee County fair this month he had machines plowing, fitting and operating an ensilage cutter, and in addition exhibited the agricultural implements that he sells as added lines to the tractor.

SPECIALISTS FOR SPECIAL WORK—Walker employs eighteen persons, and none is a jack of all trades. Lines are as closely drawn between his sales, service and office departments as in a large establishment.

His car salesman sells nothing but cars.

His tractor salesman is a product of the farm, with a training in general and automotive merchandising.

His tractor service manager is a "graduate" of a tractor factory, with wide experience in tractor operation ON THE LAND.

His general repair work and his stocks of accessories and parts are kept as near 100 per cent complete as factory deliveries will permit. Walker does not keep his customers waiting.

PERSONAL SUPERVISION—When he entered the au-

tomotive field Walker was his own staff, practically speaking. But he passes on every major problem to-day, as he did when he was the whole works. His system keeps him in touch with the more important details of the business, and he attends personally to advertising direction and financial management.

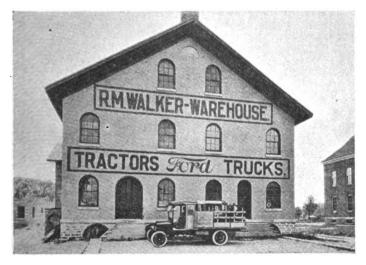
Eliminating other lines which he formerly carried, Walker has concentrated, to permit more extensive specialization throughout his plant, upon Ford cars and trucks and Fordson tractors. He does his own financing, carrying notes in his own safe, his carrying charges, including fire and theft insurance, ranging as follows:

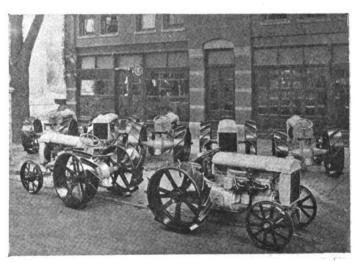
Ford, touring and roadster	\$ 30
Ford, sedan, coupé and truck	40
Fordson tractor	50

Because car and truck sales largely have been taking care of themselves throughout the boom period since spring, and because employment of the tractor is in its infancy in New York State, Walker has devoted himself intensively to tractor merchandising.

In his study of the tractor market, he has gone on the principle that every sizable farm needs a tractor. But as a good business man, he wants to sell only to farmers who can afford to buy.

As a taxpayer, Walker turns a taxpayer's privilege of examining public records to the advantage of his business. He has listed every farm in his territory of seventy-five





Walker turns his warehouse front to advertising uses. And when he gets a shipment of tractors they are assembled for delivery in front of his sales establishment on Main Street, shopping thoroughfare of the town and countryside



acres and more. He has obtained the assessed valuation of each farm, AND UPON THIS INFORMATION HAS BUILT UP HIS LIST OF PROSPECTS. It is not difficult to weed out the "impossibles" in such a roster. The prospects are on Walker's calling list, and he has in his office a report covering every one of them—a written record of business possibilities for the coming year. He rates no prospect as "retired" until he has bought a tractor—from Walker or some one else.

Walker sells tractors on a basis of one-third of the price in cash and the balance in eight monthly payments.

In charge of his tractor department he has—

A SALESMAN WHO WAS BORN ON A FARM, WHO HAS RUN A GENERAL COUNTRY STORE, WHO ACQUIRED AUTOMOTIVE SALES ABILITY BY SELLING CARS AND WHO STILL SELLS CARS, IN THE FARMING SECTIONS, IN ADDITION TO TRACTORS.

A SERVICE MANAGER WHO SPENT FOUR YEARS WITH A TRACTOR MANUFACTURER AND WHO HAS PLOWED AND FITTED LAND IN SEVENTEEN STATES, SCATTERED THROUGHOUT ALL SECTIONS OF THE COUNTRY, AND IN TEN FOREIGN COUNTRIES.

It is not surprising that Walker has sold twenty-eight out of ninety-eight tractors marketed this year in Genesee County, and that his prospects for next year are promising.

In addition to his service truck for cars, Walker maintains one for tractors, and both are on call day and night. He carries tractor parts, and a line of plows, discs and other implements adapted to use with the Fordson, with their parts. But he doesn't stop at carrying stock. HE TELLS THE PUBLIC ABOUT IT.

In one advertisement in the local newspapers he announced as follows his idea of tractor service:

- 1. Complete stock of parts for tractors, plows and discs.
- 2. Service truck ready to give service when needed.
- 3. Expert tractor mechanic on duty.
- 4. The most completely equipped tractor service station in western New York, bar none.
 - 5. The following up-to-date machinery in operation: Running and burning-in stand. After the motor has been overhauled this machine works slowly and thoroughly so that a perfect result is obtained.

Arbor press, operated by compressed air; presses gears from shafts quickly both off and on.

Straightening press, for aligning crank and camshafts.

Connecting rod straightening jig; it shows when the connecting rods are in perfect alignment. And all other necessary up-to-date equipment.

Announcing that his shop carries a complete line of Fordson power instruments which are especially designed, tried out and recommended to go with Fordson tractors, Walker made the following announcement, which he says has been effective in inducing sales:

With labor so high, it is essential for every farmer to have a tractor. It is more important for the dealer who sells the tractor to have on hand for immediate delivery a complete stock of parts, also a service truck ready at all times to give immediate service and an expert tractor mechanic, and that dealer does not say to you, "Wait until I send to the factory for that part."

Walker also used effectively the following advertisements:

The crops from 125 million acres are eaten each year by the horses of this country.

Mr. Farmer, how much are you wasting?

All of this land could be turned over for the production of food for human beings.

You are feeding your horses the year around with about eight weeks' work out of them?

One Fordson tractor will replace a half dozen horses on your farm and its food comes from under the ground, not from valuable land.

Fordson tractors are the result of five years' development.

Fordson testimonials from farmers in every town in this county are on file in our office. Ask to see them.

Fordson tractor parts are in stock on hand. No wait.

Walker does not neglect his shop to watch his market, nor does he get buried in routine and forget that business comes to him who goes out after it. By keeping an eye on both he has made the small town automobile business pay.

Can you apply some of Walker's methods to make yours a better business?

New York or Chicago? No, a Salesroom in New Zealand



The photograph, which gives a good indication of the volume of business in American cars conducted by Adams.

Ltd., in Christchurch, shows a line of new series machines on the left and old series on the right



SUPPRESS THE CAR THIEF

What YOU Can Do To Speed This Vital Reform

WENTY-ONE almost new passenger cars of a single make, stolen in neighboring states, have been sold within the past few months in a small Middle-Western

The local dealer handling that car, it goes without say-

ing, lost upwards of twenty-one sales.

The story is told as a concrete example of what the traffic in stolen cars is doing to legitimate automobile

merchandising throughout the country.

It emphasizes the statements made repeatedly by the National Automobile Dealers' Association and by forwardlooking dealers—that the car merchant cannot sit back and say, "It's up to the courts; I can't make my establishment a detective agency."

One phase of the N. A. D. A. fight against car thieving is half won. The House of Representatives has passed the bill making the driving of a motor car from one state to another interstate commerce, providing that the thief may be tried wherever caught, and fixing the penalty at NOT MORE THAN FIVE YEARS IN PRISON, OR \$5,000 FINE, OR BOTH. The House cut the N. A. D. A.'s original penalty in half.

The bill now goes to the Senate, and every dealer, whether engaged in wholesale, retail or both, should make known to both the Senators from his state, by personal call, telegram or letter, HIS DESIRE THAT THE MEASURE BE MADE LAW.

After that, the dealer's duty is to co-operate with his associates in the trade-

- 1. To bring about enactment of state laws to curb traffic in stolen cars within his state, and
- 2. To spur city, county and state authorities to persistent prosecution and adequate punishment of thieves and receivers of stolen automobiles.

Meantime, it is interesting to note that the car thief has run into the Biblical way of the transgressor in some sections. In Guthrie Center, Ia., this month two men who drove a stolen car to Omaha, and sold it, were sentenced to ten years in state prison. In that case the extradition laws were invoked to bring the culprits back from South Dakota, where one of them lived, but the proposed Federal law eliminating the necessity of interstate co-operation would have simplified their apprehension.

An Iowa reader of Motor World, intimating that prosecution has not been in all cases as vigorous as it might have been, declares that "We are now on the verge of reestablishing the anti-horse-thief association of pioneer When this has been accomplished the automobile thief caught 'red-handed' will need neither judge nor jury, nor will he repeat the offense this side of-well, the future home that will be waiting for him."

Of course, the good people of Iowa will do nothing of the sort, but the statement shows the intensity of public indignation and promises attainment of an attitude on the part of Iowa's officers of the law which will make that state a dangerous place for car thieving activi-



Make This Possible!

TRGE your United States Senator to vote for the bill already passed by the House of Representatives, and reading as follows:

A BILL

To punish the transportation of stolen motor vehicles in interstate or foreign commerce.

Sec. 1. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the National Motor Vehicle Theft Act.

Sec. 2. That when used in this Act:

- (a) The term "motor vehicle" shall include an automobile, automobile truck, automobile wagon, motor cycle, or any other self-propelled vehicle not designed for running on rails:
- (b) The term "interstate or foreign commerce" as used in this Act shall include transportation from one State, Territory, or the District of Columbia, to another State, Territory, or the District of Columbia, or to a foreign country, or from a foreign country to any State, Territory, or the District of Columbia.
- Sec. 3. That whoever shall transport or cause to be transported in interstate or foreign commerce a motor vehicle, knowing the same to have been stolen, shall be punished by a fine of not more than \$5,000, or by imprisonment of not more than five years, or both.
- Sec. 4. That whoever shall, with the intent to deprive the owner of the possession thereof, receive, conceal, store, barter, sell, or dispose of any motor vehicle, moving as, or which is a part of, or which constitutes interstate or foreign commerce, knowing the same to have been stolen, shall be punished by a fine of not more than \$5,000, or by imprisonment of not more than five years, or both.
- Sec. 5. That any person violating this Act may be punished in any district in or through which such motor vehicle has been transported or removed by such offender. A judgment of conviction or acquittal upon the merits under the laws of any State, Territory, or the District of Columbia, of any defendant charged with stealing any motor vehicle shall, as against any such defendant, be a bar to a prosecution hereunder for transporting such motor vehicle in interstate commerce.



Wisconsin Farmers See Remarkable Exhibit of

FARM LIGHTING

Sunnyhome, New System Brought Out by General Motors, Shown in Specially Built House on Milwaukee Fair Grounds

ALESMANSHIP promotion that does not merely show a product, but demonstrates what it will do by showing it in operation—the type of publicity that has placed the automobile in the first rank of American industries—was employed on an extensive scale at the Wisconsin State Fair in the first exhibit of Sunnyhome, the farm light system just brought out by the General Motors Corp.

To house its display General Motors built a house, a

bungalow, whose exterior appearance was a standing invitation to explore its interior—a real sunny home. And inside, in a bright, home setting, were Sunnyhome appliances for lighting the home and making it a haven of lighter work and greater comfort for the farm family, with the Frigidaire iceless refrigerator added for good measure.

The Sunnyhome exhibit, presenting ideas which hold a store of suggestions for farm light exploitation, not only at shows and fairs, but in salesrooms and windows, attracted thousands of visitors at the Milwaukee exposition grounds.

For the visitors it visualized what electric equipment will bring to the farm home. The building was supplied with current from

the Sunnyhome powerhouse outside. Inside electric utilities that appeal to the farmer and his wife were shown in operation.

The people entered one door and were greeted with music from an electric piano, and in turn were shown the table utilities, such as the coffee percolator, the toaster and casserole, then the electric iron, the churn, the vacuum cleaner, the washing machine, the electric fan, the cream separator and the water system, which included bath room equipment.

One of the features was the iceless icebox, called Frigidaire. This does away with the old fashioned methods of refrigeration. It makes its own cold and automatically

keeps the icebox at the temperature necessary for the proper preservation of food. In addition to this it makes a sufficient supply of ice for table use. Frigidaire is operated entirely by electricity.

Included in the exhibit were also utilities for the farm machine shop—the Sunnyhome drill press, the lathe and the grinder and buffer.

Sunnyhome is the name of the new electric light and

power plant of the Sunnyhome Electric Co. of Detroit, a division of General Motors. This unique outfit is a complete power plant in itself which sits in its own little powerhouse out in the yard. It operates automatically, requiring no attention except filling with gasoline. Once in a year it is charged with lubricating oil. In fact, Sunnyhome is almost human. It starts and stops itself, when it is out of fuel it shows a red light, usually located somewhere in the farmer's home.

Because Sunnyhome is automatic it will run, when necessary, power devices continuously, such as electric irons, cooking utensils, heaters and refrigerators, without any attention from the owner.

The battery cannot run

down or become overcharged, and the powerhouse warms itself automatically in cold weather.

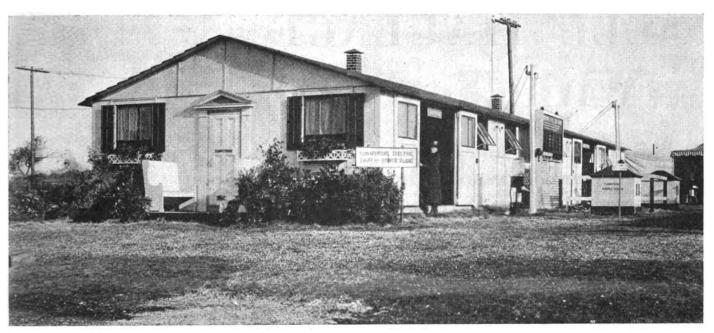
BANCE FOR BANCE OF THE PARTY OF

The Sunnyhome plant with its "roof" lifted up

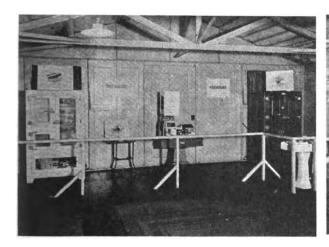
Organization of the Sunnyhome company and its elaborate exhibit by way of self-introduction to the public is an example of the manufacturers' estimation of the future of farm lighting. With millions of Americans living in sections where commercial electric power for lighting and operation of machinery is not obtainable, the field for merchandising the equipment being brought out by a number of farm light producers is practically without limitations. Farmers, now almost unanimously prosperous, are not content to "worry along" with the inconveniences of the olden days, and are in a mood to listen to salesmen.



Sunnyhome Exhibit at Wisconsin Fair

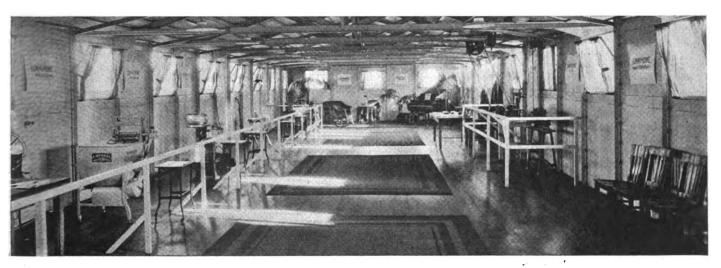


The "home" looked the part, as shown by the photograph taken on the fair grounds





At the left, the Frigidaire exhibit; at the right, the living room corner—and the girls at the piano and the lunch table are not mannequins



Looking down the interior of the Sunnyhome house. No wonder the exhibits attracted thousands



Can You

SELL HAULAGE With Trucks

Philadelphia Dealer Wins Signatures of Hesitant Prospects by Offering Contracts to Keep Purchased Vehicles Out of Idleness

S an extra inducement to prospects to purchase trucks, dealers and distributers in Philadelphia sometimes introduce unusual methods of guaranteeing work for a certain period for the cars, once they have been sold outright for cash, or a payment has been made on them. Because of an unusual opportunity for supplying contract work for the trucks they sell, the distributer for Hall trucks in the Philadelphia territory, the Guarantee Automobile Exchange, 631-637 North Broad Street, Philadelphia, has been able to devise a new merchandising plan presenting a decidedly different angle from the ordinary method of keeping a customer's cars

It happens that the plan used locally seems to fit right in with the slogan of the motor truck division of the Lewis-Hall Iron Works, of Detroit, Mich., which is "Helping Contractors Get Things Done." The Lewis-Hall concern is the manufacturer of Hall trucks, so it is only natural that the Philadelphia distributers should have a wide acquaintance among contractors and become familiar with their varying problems. The Philadelphia distributing district includes Eastern Pennsylvania and portions of New Jersey, Delaware and Maryland.

Among the business concerns in New Jersey visited by the Hall salesmen from Philadelphia is the Reduction & Concentration Corp., of Gloucester. When first called upon, members of this corporation, like many others, said they were less interested in buying trucks than employing individuals who own trucks to do their work. Their attitude was that they did not wish to have any driver or repair problems beyond what they already had, but that there was a great deal of work to be done for them by the right truck owners.

The corporation has obtained extensive marl beds in the vicinity of Sewell, N. J., the sand from which, it announced, when reduced and treated, produces a mixture of 10 to 12 per cent potash, in the right proportion for spreading as fertilizer.

While Nebraska and California mines produce considerable potash, the bulk of that used in this country, until the war, came from Germany. But the German potash is shipped in a state virtually "raw" and unfit to spread as fertilizer on farms until further treated and its strength reduced. The discovery of the reduction process in connection with the marl beds meant big hauling jobs for the Reduction & Concentration Corp., the output of the marl beds being called by the generic term of "green sand."

After learning the particulars, Charles H. Friars, treasurer of the Guarantee Automobile Exchange, saw a chance to enter into a contract with the Reduction corporation to keep "on the job" with steady work a certain percentage of cars he might sell, thus adding inducement to the purchaser through the promise of the work, which here was certain. This at once was an advantage over any other competitor who would have to hunt for work for his customer's cars.

The Philadelphia Plan

Accordingly, Mr. Friars and the salesman whose prospect the Reduction corporation had been—E. T. Jolley—formed a co-partnership aside from the Guarantee Automobile Exchange, trading as Friars & Jolley, hauling contractors, still, of course, retaining their connections with that company. Their plan is as follows:

First—To sign articles of agreement between their co-partnership and the Reduction & Concentration Corporation, whereby the co-partnership obtains from the Reduction corporation the exclusive right to haul all the "green sand" from Sewell to Gloucester, N. J., the head-quarters of the corporation, and in addition to deliver such manufactured articles as the corporation produces, with this proviso: That the contract may be transferred in whole or in part by the co-partnership on the approval of the corporation. This is a very necessary point in the plan as regards the

prospects hesitate to buy because they fear periods of idleness when the capital tied up in the purchase would stand idle?

A Philadelphia firm had this difficulty, until its officers hit upon the idea of making a haulage contract with a vicinity corporation, under which work is furnished purchasers of trucks, according to their desires.

The plan enables the dealer to sell not only trucks, but sub-contracts for haulage at standard rates, an inducement which has been productive of a vigorous business growth.

You may be without opportunity to follow the example of the Philadelphia firm, but there is work for trucks in every community. Have you considered the chance of capitalizing the haulage market in your town to boost your truck sales?

co-partnership, as it permits it to employ extra trucks to complete the job and hold the contract, if an insufficient number of trucks is being sold at any one period to keep the hauling up to the requirements. Sales are likely to fall off at periods of a season, as all dealers know, and yet it is most desirable for the co-partnership to keep the contract, especially now that other dealers have heard of it through the advertising campaign begun in the newspapers by the Guarantee Automobile Exchange. It is stipulated that 5-ton trucks be used in the work.

Second—To draw up a form of hauling contract for use between the copartnership and the purchasers of a Hall truck or trucks.

The form provides for the hiring of the customer's trucks for a year, provided the contract is executed satisfactorily, the customer to furnish chauffeur, gas, oil and accessories and all else needed to keep the trucks in repair, for the hauling of the "green sand" from Sewell to Gloucester at the rate of 90 cents per ton, payment to be made every lifteen days. The co-partnership, in consideration of supplying the work, retains and deducts a brokerage fee of 10 per cent of the money due under the agreement.

Third—Special, easy terms are made to customers purchasing under this agreement.

These are as follows: The selling price of the 5-ton Hall, with dump body and hydraulic hoist, including insurance and war tax, is \$6,100. The sum of \$2,500 is paid down and the remainder is paid in monthly installments of \$300, or, not infrequently, \$200, as recently advertised. In some cases extension of

the payment period is made to 18 months, in which instances there is an extra charge of 6 per cent for insuring and financing.

Operating expenses, stated as a whole. covering every contingency, are given by the company as \$147 a month.

Here are the figures offered by the company to the prospect:

The contract price for hauling is 90 cents per ton.

The full capacity of the Hall 5-ton truck is actually 7 tons.

This makes \$6.30 per trip from Sewell to Gloucester.

Trucks are making five trips a day on the job.

This means each truck earns \$31.50 per day.

Ten per cent of this sum is taken off by the co-partnership, Friars & Jolley, as its fee under the hauling contract.

This leaves \$28.35 net for the truck owner for his day's work.

Taking 26 working days per month as a basis, the net earnings per month for each truck is \$747.10.

Deducting the salesman's figures on operating expenses, or \$147 per month, this leaves in round numbers a monthly profit of \$600 per truck.

No case yet has come up where the operating expenses on one truck on the Sewell-Gloucester hauling job has exceeded the sum given, or \$147.

So well does the company think of this

\$600 Monthly Hauling Contract

We Will Sell 10 Men 5-TON CAPACITY DUMP TRUCK On Our Easy Payment Plan, PART CASH, BALANCE \$200 MONTHLY



We have signed contract for 10 DUMP TRUCKS to Haul Sand 18 MONTHS AT \$600 MONTHLY,

Take advantage of this splendid opportunity to start in business for your self, and have steady work guaranteed with good income.

Hall Truck Agency

One of the ads that brought Philadelphians business

selling inducement that it is planning to rent a building midway between Sewell and Gloucester as a service station, with repair parts and full Hall service

Additional hauling contracts are being made with other concerns, in order to start new customers in business, according to W. J. Robertson, general manager of the Guarantee Automobile Exchange.

While the Guarantee Automobile Exchange has been fortunate in thus ob-

taining a special, steady means of supplying work for customers' trucks, thus being able to make promises to prospects that it is able to fulfill without fail, it does not mean that live concerns with live salesmen cannot, in other cases, seek out and find equally advantageous arrangements which can skilfully be turned into merchandising plans—in fact the contract hauling method of the company and the co-partnership within point the way to variations and extensions of such arrangements.

Carolina Dealers Get Together

T HE Carolinas are making dealer history. Since the first week in September the men in the trade have been meeting weekly to plan better merchandising methods. This week they are meeting at Charlotte to form a bi-state association.

This is a forward looking step and a very significant move for a section of the country which hitherto has not believed dealer co-operation essential. It is a sign of the great prosperity which has come upon Dixie, and notably the two Carolinas, as a result of the war, and which is affording undreamed of possibilities for the automotive trade.

Twelve of the leading automotive interests in the capital city of North Carolina are behind the movement to realize some of the benefits to be obtained from dealer co-operation. Pioneers in the movement are M. A. Rushton and Jack Cussons of M. A. Rushton, Inc., King 8; W. S. Muerchison, of Standard Motor Co., Ford; C. A. Payne, of Payne Motor Co., Paige; L. McK. Goodwin, of Goodwin-Westcott Co., Westcott & Holmes Air Cooled; M. Tooley, Anderson 6; W. S. Boyd. Republic Trucks: B. S. Shepherd. of Southern Storage Battery Co.; William Boylan, of Interstate Motor Equip-ment Co.; T. H. Kline, of Fiske Rubber Co.; John McDonald, of Raleigh Auto Exchange; D. Fox Marshall of Marshall Motor Co., Chandler; Dale-Overland Co. M. R. Beaman, of the Raleigh Chamber

of Commerce, who is taking an interest in the movement, was also present.

M. A. Rushton, who handles the King for the two Carolinas and has been for some time an enthusiast on dealer cooperation, was elected president of the new organization.

The Raleigh dealer organization is a direct outgrowth of the prosperity which has come to the South during the war. It is more than a get-together of prosperous car merchants in a leading Southern city. It is the symbol of the vast opportunities which are opening up to motordom in the South. The main purpose of this article is to give concrete instances of the wealth which has come from the war, not only in Raleigh, but particularly in the Carolinas, and to show how this has already affected the motor industry and may affect it in the future.

Three of the main sources of additional income to the South resulting from the war have been the high price and constant market for cotton, the heavy government orders which kept practically every cotton mill in the South on a twenty-four hour basis during the war, and the placing of the majority of the army camps below the Mason-Dixon Line.

The location of the camps was the most immediate source of prosperity because it not only brought hundreds of thousands of soldiers, many of them from wealthy Northern and Western homes, but also thousands of still more prosperous visitors. In the camp towns hundreds of Southern homes, which had never before been open to roomers, yielded to the emergency from a patriotic standpoint as well as a financial one. The influx of the new population meant a tremendous retail business in all lines, especially marked, of course, in the hotel and restaurant trade.

But of more lasting importance was the actual valuation of the camps themselves, which are still being kept in operation or are being sold for factory sites.

The amount of wealth which has come into the Carolinas from this source may be seen by the following tabulation of camps which are located in these two states, with their estimated cost:

In addition to these must be added the Azalea and Kenilworth Hospitals at Asheville, Pisgah Forest Lumber Camp, near Brevard, N. C., Paris Island Barracks, at Beaufort, N. C., and Camp Polk at Raleigh.

Raleigh has reflected the improved financial condition of the South not only

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through dealer co-operation, but also in new buildings. The Standard Motor Co., Ford dealers, have put up a handsome new \$200,000 plant. Across the street is the \$75,000 brick and cement building of the Mills Tire Co.

Charleston, S. C., has its own methods and one would not guess that there had been any change there in the past twentyfive years in looking at most of the buildings on its motor row. Charleston has cobble-stone streets and prides itself on doing things in its own way. Nevertheless, vast wealth has been added to the city during the past year by the development of the port terminals. This, with the possible exception of Norfolk, Va., is probably the largest addition of wealth that has been brought to the South, for it has made Charleston the fourth port in the country, and at many times during the war it was the third largest embarkation and debarkation point for troops. The huge wharves and railway facilities developed here will be a permanent addition to the city, and indirectly an incalculable advantage to the automotive trade.

Columbia, S. C., is conspicuous for high-class dealer buildings and garage equipment. The Roddey Co., handling Studebaker, has a modern brick plant on one of the busiest corners of the city.

The latest models of gasoline filling stations, free air pumps and oil pumps may be found at many of the garages in this city.

Greenville and Spartanburg, in the western part of the state, will probably profit more now than they did when Camps Sevier and Wadsworth were filled with men, as far as the automobile business is concerned.

Fayetteville, however, which is near Camp Bragg, profited immediately by the location of the camp there. New dealerships have sprung up there as a

result of the camp prosperity. George Elliott has recently taken on the Paige agency. William Morgan is entering the field with the Oldsmobile, and William Holt is a newcomer with the Roamer.

The camps have brought hundreds of miles of good roads to the Carolinas directly and indirectly.

With the impetus of war wealth and with the dealer co-operation movement, which is being fostered by Raleigh, the Carolinas may look forward to a new

Central Salesroom a Success

I MPETUS to the move for more centrally located automobile retail districts has been given by the success of the first venture in this direction in Chicago. Thomas J. Hay, distributer for the Cleveland, who opened the first establishment of this sort on the new and uncompleted Boulevard Link, reports such success that his example in moving to the central business district is expected to be followed by many others within the next few months.

Rentals on the Boulevard Link are considerably higher per foot than in the district now occupied by Chicago's motor car dealers, but figured on the basis of cost per prospect, they figure lower. It is estimated that less than 33 per cent of the motor cars in Chicago pass the old location, while experts believe that when all work has been completed on the Link, approximately 70 per cent will pass over it at least two or three times a week. In addition, the new location is only two blocks from the most central retail business district in the city.

Solution of the high rentals and limited space on the Link may come through the separation of the sales and service rooms. While some distributers probably will continue to house these two departments under the same roof, the growing tendency in larger cities where high rents prevail seems to be toward the maintenance of a small salesroom and immediate service shop in the high rental district with the main service station for major repairs and overhauling in districts where the rent is lower.

Sewell Cushion Wheel to Open Western **Branches**

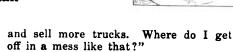
DETROIT, Sept. 15-The Sewell Cushion Wheel Co. is negotiating to open branches on the Pacific Coast at San Francisco, Portland and Seattle.



MAKE TRUCK SALES FIT

Sell Only to the Man Who Can Pay for the Truck and Who Has Use for It, Is Reilly's Suggestion to a Brother Dealer Who Is in a "Mess"

By Ray W. Sherman



"What I'd like to ask," Reilly retorted, "is how you ever let yourself get into such a mess as that?"

"What do you mean?"

"Why do you sell trucks on time to birds who have no use for them?"

"What else can I do? I've got to sell trucks, haven't I?"

"To be sure, you have!" Reilly declared. "But why sell a truck if you don't make a profit on the sale?"

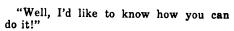
"Well, I'll tell you how it is: There's a bunch of truckmen in this town who are sold on the truck idea, but they haven't any money or much of an idea as to how to operate a truck after they get it. These birds blow in here and want to buy a truck. They want to buy on time and give a string of notes as long as your arm at a reasonable rate of interest and start out to pay for the truck. Then, first thing you know, they find they've done their trucking so much faster than they anticipated that they need more work. Incidentally, it, of course, costs a little more to run the truck than it did the horse truck. They can make more money with the truck than they ever could with the horse, but they've got to have a greater volume of business to do it.

"They come in here with a wail about how they need more business, and put it up to us to help them out. We did it with one truckman and I guess the rumor must have spread that we were in this good Samaritan business, for now all of them keep running in here after business and the truck salesman has to spend all of his time digging it up for them. That's how we got into the mess. Now, how are we going to get out of it?"

"Sure is a mess, isn't it?"

"I'll tell the world!" Henry declared.
"And I'll also tell the world that unless I can figure some way out of the mess I'm going to dump this truck business again and stay away from it!"

"But, Henry," Reilly expostulated, "I'm not in any such mess as that, and I've been handling the Sayanna truck for a couple of years. I've got a nice clean business—and I'm making a profit on every truck I sell."



"It seems to me, Henry," Reilly explained, "that you have been letting this salesman operate in rather a hit-or-miss fashion. Why did you ever let him sell trucks to these improvident truck men, who are poor risks in every way?

"What you need to do, Henry, is be a bit more particular about who buys your trucks. One of the worst things a truck dealer can do is to sell a truck to a man who has no use for it. There are plenty of people in this town who have big use for trucks. What you ought to do is sell trucks to those people."

"Oh, I—"

"Wait a minute, Henry, till I explain. I'll bet that you never took a list of the lumber men in Callawassa and went after them for trucks. Did you?"

"Well-no, not a complete list."

"And you never listed all the farmers outside of town and went after them?"
"No."

"And you never listed all the coal men and went after them?"

"Coal men don't use one-tonners."

"In other words, Henry, you've been taking whatever business walked in the door and insisted on having your truck, and that class of business was of the poorer sort. If you're going to sell trucks and make a profit at it you've got to be careful of your prospects. You've got to work hard, too. You've got to list all the companies in different trades and send out sales letters that fit the trade, and have the salesman follow them up in a real way, sifting the list till you have a real one. You've got to go at the thing intelligently.

"It's the old story, Henry. We lost money on passenger cars because we let our customers handle the trades. We cut prices because our customers insisted on it. We let ourselves be buffaloed on free service. We gave away accessories and did all sorts of fool things because we were not men enough to run our own businesses instead of letting our customers tell us how. It's the same thing again. Take hold of this truck sales thing with a firm, intelligent hand and run it to suit yourself. Then it will suit you—and NOT until then."

"P LAIN sick and tired of it—if you ask me!" declared Henry Bennett

ask me!" declared Henry Bennett.

"That so?" replied Reilly in a tone which indicated that he was not much surprised. He had long ceased to be surprised at the things Henry Bennett did. Even in the days when they played baseball in the old sand lot Henry always had trouble getting along. If the sand lot captain shifted him to the outfield because he wasn't fast enough on the infield Henry could always tell a beautiful story of how the captain had it in for him and the team was ruled on a basis of favoritism.

And when they both got into business in Callawassa in parallel lines it was the same old story. Henry always was up against adverse conditions. Something was always wrong—with something other than Henry himself.

Reilly, who distributed the Sennett car, the Sayanna truck and a few other things in and about Callawassa, had tried to push Henry into more prosperous channels. He had tried to sell him the truck idea. In fact, Henry bit once, kept the agency for a while and then gave it up. And recently he had taken another agency for a pretty good one-tonner—and was having the usual "bad luck."

"There's nothing at all in this truck thing!" Henry declared. "It can't be done! I've tried it—TWICE! And each time it's been the same old story with variations."

"Yes?"

"The first time," Henry explained, "the darned thing wouldn't sell because the men wouldn't sell it. Everything went wrong. It cost me money. So I dumped it. And then you sold me on the idea again. You told me to get separate salesmen for the truck. I did it. And now I'm having the time of my life—in a different way."

"What now?"

"Well, I got separate salesmen—or one salesman—and he seemed to be able to sell trucks all right, but right now he's spending most of his time trying to get business for the truckmen who bought the trucks on time so they can pay for the trucks. He's putting in about all of his time collecting for the trucks we've sold and he hasn't any time to go out



A NEW IDEA in Car Washing

A CAR thoroughly washed every 20 minutes at a cost of only \$1 to \$2 each, depending on the type of car, is the record now being made by the Euclid Auto Wash, Cleveland. The plant runs night and day and has a capacity of from 500 to 800 cars every twenty-four hours. This means a daily income of from \$1,000 to \$1,200. And the surprising thing is that it is nearly all hand work, the mechanical appliances being principally to facilitate the efforts of the men.

Almost, it may be said, a car never stops from the time it enters on the wash track until it is delivered, thoroughly cleaned, at the other end, something less than 100 feet away.

The wash tracks, of which there are four, parallel, are of concrete, with a heavy flange on the outside so the car cannot get out of line nor run off the track. The concrete floor on the outside and between the tracks slopes to the center of the building, longitudinally, both to facilitate drainage and to elevate the track throughout most of its length from 2 to 3 ft. above the line of the floor. This arrangement makes it easier for the men to work, as for the most part they are not compelled to stoop to reach the various parts of the car.

The tracks are 80 ft. in length and each will accommodate five cars at a time. Each has a low degree slope so that the car almost will run along the track by its own weight, a very small impulse being required to start it moving. A washing gang consists of from ten to twelve men, half of them working on one side of the track and half on the other. Thus there is no time wasted in moving around the car, each man working at his station and not being compelled to move farther than the length of the car.

The car goes through five or more processes. On turning onto the wash track it stops first over a cradle of perforated pipes the length of the car. From these pipes a set of eight sprays strikes the car from as many angles, but being so arranged that none hits higher than

the side of the car, thus protecting the upholstering from getting wet.

On either side of the car at this first station there are platforms suspended from the roof trusses on which stand the men who wash the top. These platforms are high enough so that the washer easily can reach the center of the top without difficulty. A flexible hose connection to an overhead feed pipe provides the water for this process. The top is given a thorough washing with a sponge.

By the time the top is cleaned the sprays will have loosened all the accumulated dirt and mud from the chassis,

The Used Car Problem

The dealer who would make a success of selling used cars must not treat it as a side line, but must regard the work as a department of his business requiring just as much attention to good merchandising as new cars, accessories or service.

A Detroit dealer is handling the used car proposition RIGHT. Motor World will tell next week how he does it.

body, fenders and running board. The spray then is turned off and the car is moved forward a little more than its length.

Here two men, one stationed on either side of the car, go over the hood, tonneau and other parts with hose and sponge, while a kerosene spray takes the grease from wheels and chassis.

Another move through its own length and the body is given a compressed air and chamois drying.

The next stage is to polish it with a specially prepared liquid polish and to go over the upholstering with a vacuum cleaner.

The car owner who meantime has been sitting along a railed space extending

the length of the wash room, a space fitted with chairs for his convenience, then pays his score, gets into his car and drives away with a clean outfit. He has been detained about 20 min.

In case the driver is a woman who does not care to join the watching throng on the side lines she will find a rest room at the front of the building. Across the driveway, on the other side, an equal area is given up to the executive offices of the concern.

The building is of brick and concrete, turret construction, and is built in the form of an L. The short arm of the L, measuring 50 x 165 ft., opens on Euclid Avenue, where is the entrance driveway. The car, after it passes the office and rest room, has no obstruction to maneuvering and there is space to accommodate a dozen or more cars while waiting for a turn on the wash tracks.

The long arm of the L, containing the wash tracks, is 90 x 220 ft. The sides of this section of the building are of opaque glass, while the sides of the turret are of clear glass. This affords ample light under all conditions. Hanging electric lights with powerful reflectors, twenty of them to each section, wall lamps and ceiling lamps give light at night.

All pipes for water, compressed air and service of all kinds are overhead, with chain operated valves so there is no need for walking to the connection to turn air or water on or off and there is no time lost turning valves or turnbuckles. Air compressor, tanks and electrical power plant are loctaed on a swinging balcony at the level of the lease of the turret walls.

In fact, the entire arrangement, from original plan to location of all appliances and apparatus, is intended to expedite the work of the men.

The prices charged are somewhat lower than the average of the regular garages in the city. They run from \$1 to \$1.50 for Ford cars, \$1.50 for electrics and from \$1 to \$2 for other cars, depending on whether they are open or closed.

What Co-operation Has Accomplished for Harrisburg Dealers

Reducing the cost of exhibition space at a Grangers' Picnic from fifty cents to two and one-half cents per foot was accomplished through motor car dealers acting through their association instead of as individuals. For some years past it has been the custom of the dealers at Harrisburg, Pa., to buy space at the annual Grangers' Picnic, which is a sort of state gathering of farmers, and the cost ran into a pretty big figure, as the dealers would usually bid against each

other for preferred positions. This year thirty-two dealers handling cars and trucks and fourteen dealers handling automotive equipment pooled their interests and placed the matter in the hands of the Harrisburg Motor Car Dealers' Association, and the result seems to have been satisfactory to everybody. The picnic this year was held at Williams Grove, Pa., Aug. 26-29.

National Tractor Distributer

WINNIPEG, MAN., Sept. 22—The National Farm Tractor Co, distributer of National tractors, has been incorporated.

Organize Carbureter Sales

DETROIT, Sept. 18—The Young High-Velocity Carbureter Sales Co. has been incorporated with a \$50,000 capital, to act as general agents for the United States for the Young High-Velocity Carbureter Co., and other automobile accessories and machinery supplies.

Taplex Adds Accessories

NEW YORK, Sept. 20—Two additions. just announced, to the line of accessories of the Taplex Corp. are a manifold heater for Ford cars and a radiator heater for all makes of cars. Each of these attachments sells for \$3.50.



A Big City Sales Plant in a Small Town

THE pictures on this page were taken, not in a big city salesroom, but in the new plant of the Albertus Motor Sales Co., Ford and Fordson dealers in Defiance, O., which has 10,000 population.

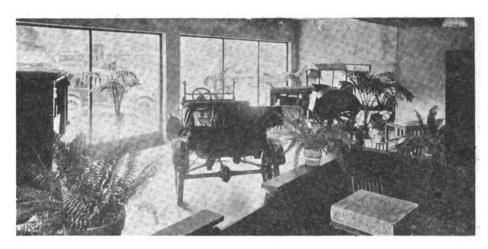
Handsome showrooms and offices occupy the entire front, flanked by a well planned and stocked accessory and parts room fronting on both the street and the garage, to be of ready access to those afoot as well as those entering the service station in cars.

Albertus was born and brought up in Detroit and acquired his business training in various branches of the retail trade there until 1915, when he entered the employ of the Ford Motor Co. as a retail salesman. He moved to Defiance as a Ford dealer in 1917 and by the application of Ford principles and metropolitan "pep" has built up a Ford and Fordson agency which ranks among the best in Ohio.

In commemoration of completion of the new service station shown here, a formal opening was held on July 19, at which time 2500 people visited the place in the one day, five cars were sold on the floor and tractor prospects were interviewed, resulting in the sale and delivery within the next ten days of five Fordson tractors, complete with the attendant power farm machinery.

Albertus was one of the live automobile dealers to see the possibilities of the tractor, and was one of the first dealers in Ohio to offer his services to Henry Ford & Son in their distribution of tractors in 1918.

While his present building has been occupied only a few weeks, plans are even now under way for extensive additions.







A Department of

BETTER **MECHANICS**

No. 118

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Modern Methods in Ford Service

This is the fourteenth of a series of Better Mechanics articles on the best methods of Ford repairing. The first installment appeared in the June 4 issue. The fifteenth installment will conclude the series

By J. HOWARD PILE

PART III—THE REAR AXLE ASSEMBLY

This Week

The Rear Axle Assembly

HE first step in the economical overhaul of the rear assembly is to have the necessary tools at hand and in such places that the mechanic knows instinctively where each tool is and where to lay his hands on it with his eyes shut if necessary. This can be accomplished by having a series of pegs or nails on a large board where it is within reach of the axle stand. The tools can be arranged logically on the board so that the mechanic can soon learn where they belong. Then the next step is to insure that these tools shall always be where they belong.

There are essentially three parts to

1-Disconnecting the axle from the chassis and taking it out from under the

2-Disassembling, replacing parts and assembling.

3-Replacing the axle in the car.

The quickest way to get the axle out is to have a rear end hook which is shown in Figs. 117 and 118. This is attached by placing the clamps on each end of the bar on the frame and then bringing the ends of the bars together, one bar resting in the safety clevis on the other bar. The links are then placed in the hook on the chain fall. This hook will lift the chassis and body up independently of the axle.

A combined rear axle jack and truck is placed under the axle so that when the connections are broken, the axle can be wheeled right out from under the car. This jack which is shown in Fig. 124, is triangular in form, the base being constructed of 21/2-in. angle iron. The pieces are bolted together and mounted on swivel castors. The two strap iron supports carry the axle and the steel handle is used as a lever to force the supports under the axle to raise it from the floor

What Has Been Covered

I-The Power Plant

Removing the engine from the car.

Taking down the engine.

Testing and straightening the crankshaft.

Rebabbitting the cylinders block.

Reboving the cylinders.

Fitting new pistons.

Fitting the piston pin.

Aligning the connecting rod.

Fitting the rings to the pistons.

Burning-in the bearings.

Testing and overhauling the mag-

-Testing and overhauling the magneto. -Overhauling the transmission.

— Minor engine repairs.

--The carbueter.

--Assembly of engine and trans-

mission.
-Testing the engine.
-The radiator.
-Engine numbers.

II-The Front Axle

Next Week

The Steering Gear. Miscellaneous Parts

and also as a handle to pull the whole outfit around with.

1-Put the rear end hook in position and raise on the chain fall until the wheels are clear of the floor.

2-Slip the axle jack under the axle so that it takes the weight off the springs.

3-Block the front wheels in front and in back.

4-Remove the hub caps with the hub cap wrench. These will most likely have to be started with a hammer, then when loosened, the wheel is turned while the wrench is held still.

5-Remove the cotter pins from the axle ends.

6-Remove the nuts, starting them with an L-wrench if necessary, then finishing the job with a speed wrench.

7-Grasp one of the rear wheels by the tire and pull outward If the wheel does not come off easily, hit the axle end with a medium weight hammer, interposing a piece of wood to protect the threads and the wheel should pop right off.

8-If it is stuck very badly, use the rear wheel puller.

9-Remove the other wheel in the same way.

10-Remove the cotter pins and ther.



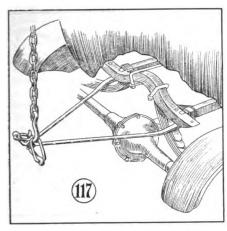


Fig. 117—Rear end hook in position for raising the rear end of the Ford. In attaching the hook, place the clamps on the end of each bar on the frame, then bring the ends of the bars together, one bar resting in the safety clevis on the other bar. The links are then placed in the hook on the chain fall

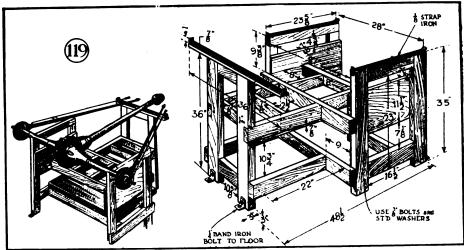


Fig. 119-A wooden rear-axle bench with all dimensions given

12—Remove the cotter pins from the universal joint flange bolts.

13—Remove the flange nuts and bolts, using a 6-ft. speed wrench with a %-in. socket. The use of this long wrench enables the mechanic to remove these bolts

15—Two kinds of axle stands are shown in Figs. 119 and 123. The entire axle is placed on one or the other of these.

Disassembling the Axle

16—Remove the cotter pins and nuts from the ends of the radius rods, using a speed wrench.

17—Using a 7/16-in. socket speed wrench with a 4½-ft. handle, remove the torque-tube retaining nuts.

18—The drive-shaft housing or torque tube can now be pulled right out, bringing the drive shaft, pinion, etc., with it.

19—A Jew speeder shown in Fig. 126 is used for removing the bolts and nuts that hold the halves of the axles housing together.

20—Pull the halves of the housing apart, having previously placed a bucket underneath to catch the "soup" or soft grease.

21—The keys are removed from the shafts, the right one before the housing is slipped off and the left one after the right half is taken off. This will permit the complete disassembly of the axle, the differential casings being separated by removing the three bolts. The thrust washers will now drop out.

22—The overhauling is completed by replacing parts which have to be renewed. There is no fitting required on any of the parts with the possible exception of the babbitt thrust washer. If this is too tight a fit, it may have to be taken down a little with a fine mill file and this must be carefully done.

Disassembling the Drive Shaft

1—Remove both top and bottom pipe plugs from the forward end of the drive shaft housing.

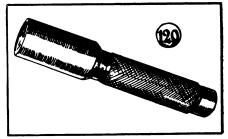


Fig. 120—Tool for driving roller hearing sleeve on propeller shaft

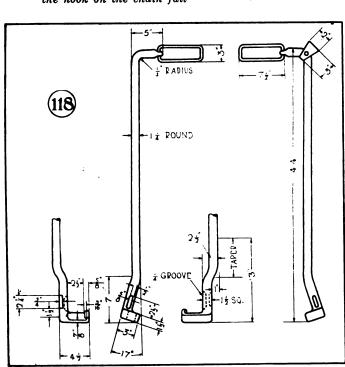


Fig. 118 — Detail plan of the rear end hook. This can be made by any blacksmith

with a speed wrench remove the perch nuts from the inside of the brake flange. This will loosen the springs from the axle.

11—Disconnect the brake rods at the front by taking out the cotter pins and pulling out the clevis pins.

without getting under the car or working in the cramped space under the floor boards.

14—This frees the axle entirely from the car and it can be pulled out on the truck jack and brought to the rear axle stand.

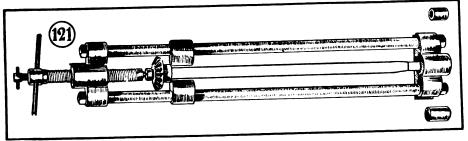


Fig. 121-Rear axle pinion gear press

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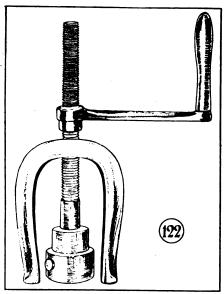


Fig. 122-Rear axle sleeve puller

- 2—Turn the shaft around until the universal joint pin comes into view.
- 3—Drive out the pin with a punch.
- 4—Drive the universal joint away from the housing.
- 5—Remove the cotter pin from the nut that holds the pinion gear on the shaft.
- 6—Remove the nut with a heavy %-in. socket wrench.
- 7—Place the shaft in the press shown in Fig. 121 and placing the stud at the end of the shaft and the pipe over the shaft, apply pressure. This will force the pinion gear off. Do not lose the key unless you are going to replace it with a new one.
- 8—To replace the gear on the shaft, place the short pipe under the gear and apply pressure directly to the end of the shaft, having first inserted the key. This will push the gear on.
- 9—Before replacing the shafts, center them in a lathe or in the testing centers which were described in the section of this article devoted to crankshaft work.

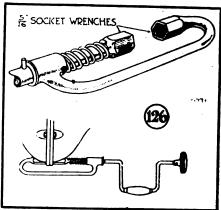


Fig. 126 — Jew socket wrench for removing differential flange nuts

throughout their tooth length. Everything must be set up tight and new cotter pins used in every case.

Assembly of the Units

- 1—Fill the bearings with grease in every case as the parts go together.
- 2—The assembly is just the reverse of the disassembly.
- 3—Pack the universal joint in grease and fill the differential with grease. This insures lubricant getting right where it is supposed to go as soon as the car starts off. After the assembly of the axle is complete, more grease can be put into the housing with a gun.
 - 4-Roll the axle under the car.
- 5—Use a bicycle wrench, thin solid wrench or spark plug wrench to turn the square end of the universal joint so that it will enter the square hole in the transmission.
- 6—Be careful not to damage the round gasket.
- 7—Insert the bolts in the flange, tighten them with the speed wrench and put on the nuts and cotter pins.
- 8—Connect up the springs to the axle. 9—Connect the brake rods, adjusting them so that the brakes take hold equally and do not bind. This is done by loosening the lock nut and turning the yoke in or out until the correct adjustment is obtained. If the brake shoes are worn so that a good adjustment cannot be obtained, they should be replaced with new ones.
- 10—Replacement of broken springs is taken care of in the same manner that was used for the front springs, this being described in the previous chapter of this article.
 - 11—Replace the wheels.
- 12—Set the nuts up tight, being first sure that the keys are in place.
 - 13—Insert the cotters.
 - 14-Replace the hub caps.
 - 15-Replace cups and fill with grease.

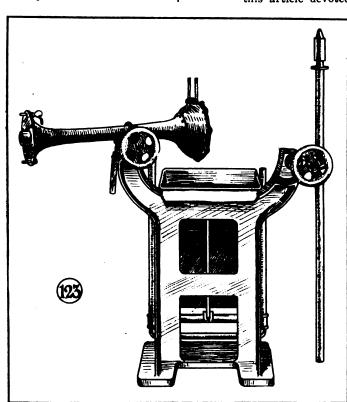


Fig. 123 — All metal combination stand which is used for rear axle

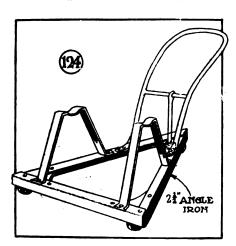


Fig. 124—Quick-acting rear axle jack and truck

If the shafts are bent, straighten them in the same press that was used for crankshaft and camshaft work or else replace them with new ones.

10—Before assembling, all parts are to be washed off and examined for wear and breakage and replacements made accordingly.

11—The differential should turn freely by hand and the gears should mesh

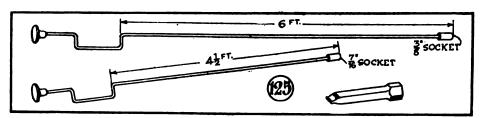


Fig. 125-Special speed wrenches for rear axle work

16—Be sure that the pipe plugs are in place in the top and bottom of the drive shaft housing.

The total time for overhauling an axle should not be over 1 hr. for one man if all things are in proper order and if the modern methods described here are used.

A device for towing in Fords with broken rear axles is shown in Fig. 127. While this is not strictly repairshop equipment, yet every shop is called upon at times to tow in a car with a broken shaft and there are so many slouchy methods of doing this that the correct and best method seems worth mentioning. This device can be attached in a few minutes time and there will be no worry about getting the disabled car into the shop in safety. Of course, the car cannot be driven in.

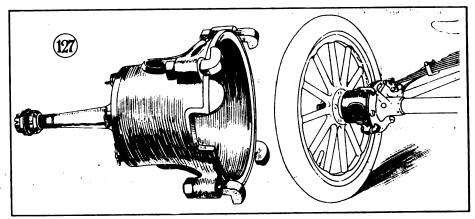


Fig. 127—A device for towing a Ford with a broken axle. A front wheel is mounted on the spindle and the clamps tightened over the axle

SHOOTING TROUBLES

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Water for Storage Batteries

Editor Motor World: Will you please instruct me how to make distilled water for storage batteries. Is rain water that is dropped in earthen or glass dishes all right? Is common water that is boiled in copper or aluminum or enameled kettles good for storage batteries?—A. J. Turcotte, Newmarket, N. H.

Answer—Water for use in storage batteries should be distilled. If distilled water is unobtainable good clear rain water will answer the purpose. Rain water from roofs of metal of those which are coated with tar or other composition is not suitable at all and should not be used. The water from tar roofs always has a certain amount of oil in it and this will have a bad effect on the battery plates.

We have described in the pages of Motor World a number of devices for and if you keep your files of Motor World you can easily locate several of these.

Testing Storage Batteries

Editor Motor World: We want to be informed as to the best method of making an instrument to tell condition of storage batteries when they are out of the car. When they are installed in the car a voltmeter reading can be taken with starting pedal depressed which throws a load on the battery and indicates condition of battery saving 2 or 3 days time on the charging table only to find the battery will not charge.—M. C. Davidson, Steubenville, Ohio.

Answer—In testing storage batteries, the voltmeter test in itself is not at all satisfactory, as it does not give a very definite idea as to the condition of the battery. The range between a com-

pletely discharged battery and a fully charged battery is so small that the difference shown on the ordinary dash board voltmeter will hardly be noticeable. The only kind of a voltmeter to use for this purpose is one with a range of about 10 volts. In the case of a 6-volt battery a fully charged battery and one in good condition would read probably up to 7 volts, whereas one in a completely dis-

THE FORD SERIES Of Better Mechanics Articles

will be concluded in the next issue of Motor World. This will be the fifteenth installment. The muffler, steering gear and other miscellaneous parts will be taken up and the illustrations will show the remaining modern Ford repairshop equipment. Keep this and the preceding issues of Motor World so that you will have a complete manual on the Ford car.

charged condition would probably read as low as 5 volts. In general, a fully charged battery gives 2.2 volts per cell and a fully discharged battery gives 1.7 volts per cell. In addition to the voltmeter test a hydrometer test of the electrolyte should be made in each of the individual cells. A fully charged battery should give a reading from 1275 to 1300,

and a battery that is below 1100 degrees is practically discharged.

There is no way for telling what condition the plates are in by either means of voltmeter or hydrometer. There is an instrument on the market called the Cadmium Tester, and this is supposed to show the condition of the individual positive and negative plates.

Louisiana Getting Ahead on New Road Building

NEW ORLEANS, LA., Sept. 18—Louisiana showed a greater percentage of completed roadway on the Jefferson Highway, from Winnipeg, Can., to New Orleans, than any other state except Texas, according to a report to the headquarters of the state highway department by Duncan Buie, State Highway Engineer. He is preparing comparative figures of the completed work done on the Jefferson Highway by every state along its route for presentation early in September to the State Highway Department.

The Louisiana State Council of the Federal Highway Council has been formed and will start an active campaign for good roads in conjunction with the Louisiana Motor League, the Louisiana-Mississippi Automotive Trades Association and other organizations.

Caldwell Parish has voted in favor of a \$500,000 road bond issue. The voters likewise approved a special tax not to exceed 10 mills to raise further funds.

The Canal Commercial Trust and Savings Bank of New Orleans has purchased for \$303,275 and attorneys' fees the \$300,000 good roads bond issue recently authorized by the people of Magnolia, Miss. The proceeds will be used for the construction of graded and graveled roads throughout the county.



Editorial Observation

—And He Lived Up to It

An editorial by Harry S. Daniels, advertising manager of the Dort Motor Car Co. This inspirational comment on the late iron master, taken from a Dort dealers' bulletin, has in it a thought which should be given to every man in this trade, and it is herewith passed on to YOU

WHEN Andrew Carnegie died recently a great philosopher passed on.

Carnegie once said: "The Republic owes no man a living—but every man owes the Republic a life of usefulness."

AND HE LIVED UP TO IT.

"Be a King in one line and not a Jack of all trades," advised Carnegie on another occasion.

AND HE SET THAT EXAMPLE.

Carnegie cared not about money for its own sake—he gave away more than \$350,000,000 of it in philanthropies, and made forty of his associates millionaires.

He liked money for the comfort, independence and influence it brought to him and his.

He liked it MORE for the general welfare it enabled him to promote.

HE LIKED IT BEST FOR THE INITIA-

TIVE, HARD WORK AND FINAL VICTORY OF ACCOMPLISHMENT THAT IT SYMBOLIZED.

His wealth was the offspring of an IDEA—an idea, pursued persistently and tirelessly to a carefully planned result.

He became "King in one line—not Jack in all trades" and therefrom we gather the best lesson of his life—a lesson that all forward-looking men should study, retain and practice.

In this wonderful business in which you are engaged, the selling of automobiles, there is an aim of far greater scope and importance than the gratification of our individual ambitions.

Fortunately YOUR well-being and the national-well-being are interlocked. To quote Carnegie again: "Millionaires can grow only amid general prosperity."

It is clearly the duty of every man—to his country as well as to himself—to do what he has determined to do in the best possible manner.

The "Jack of all trades" usually fails and the real disaster of his failure does not center in his own personal loss, but rather in the waste of a life that might otherwise have contributed to human progress and achievement.

BE A GOOD AUTOMOBILE DEALER OR ELSE TAKE UP SOME OTHER WORK.

TO BECOME A BETTER AUTOMOBILE DEALER HEED EXPERIENCED COUNSEL—ACQUIRE PROVEN METHODS—BENEFIT BY THE SUCCESS OF OTHERS.

BE ALERT, PERSISTENT, ENTHUSIAS-TIC—BUT ABOVE ALL, CONCENTRATE.

As to Legislation

THE time to plan campaigns for or against legislation is when legislatures are not in session.

The automobile interests, whose future is vitally affected by many classes of legislation, have had a habit of getting into action to support measures which would aid the industry and to oppose others which would handicap its progress when legislative sessions were about to adjourn, or the bills in question were on the verge of passage or rejection.

This condition, natural in an industry which has attained its position in the nation through strict attention to problems of designing, production and marchandising, has been overcome largely, as regards bills before Congress, through the activities of the national organizations representing manufacturers and dealers. But it still exists in the individual states. And it calls for thought and action on the part of state and local dealers' associations.

Dealers have an opportunity NOW to protect their interests in a two-fold manner.

Elections are approaching. Do you know who are candidates for the Legislature in your district? Do you know who of those candidates are friendly to sound business progress, and who are of the destructive, agitator type of politician? It is your duty, as a citizen and as a business man, to find out, and VOTE FOR THE RIGHT MAN.

That is one task. The other is to get together your dealer interests, within your State, NOW, mapping out suggestions for legislation which would protect and foster good business, if laws of this type are needed, and creating an organization to stay on the job until and during the coming legislative session, to see to it that such measures get a full hearing and to strangle in their infancy bills aimed to hamper, cripple or destroy the automobile industry.

In Iowa they have been lecturing on "How to Keep the Boy on the Farm." If tractors and other forms of automotive agricultural machinery continue to gain we may have a problem of how to keep the boy off the farm.

Wallace Irwin refers to public eating functions as "periods of expensive malnutrition." Needless to say, he never attended an automobile dealers' outing.

Don't forget this: A tri-state or bi-state dealers' association is also a my-state booster. You can't overdo co-operation.



LETTERS from READERS

When asking for information, please state whether you maintain a permanent file of Motor World, as many inquiries are answered by reference to previous issues

Praise and a Picture from South America

Editor Motor World: I am taking the liberty of enclosing herewith photograph of our motor department and hope you will take kindly to the notion of giving it space in your Motor World.

As a subscriber of your paper I am always very much interested in viewing the different displays you publish, and it may be possible that your subscribers in the states may be pleased to see what we are doing in the line of improvements in the far South through the valuable suggestions printed in your paper along various lines.

In congratulating you on the success of your valued periodical I take this opportunity to also thank you for the many valuable suggestions I have been able to adopt from your paper to great advantage.—J. A. Correa, Barranquilla, Colombia.

Buick Ignition and Bearings

Editor Motor World: Will you please tell me if the ratio of speed of the Delco machine used on Buick cars is the same ratio to the engine speed when it is used for starting as when it is generating? What is the ratio of speed of each operation?

2—What bearings are used in the wheels and axles of the 1920 Buick?—George I. Crocker, Imes Motor Co., Manhattan, Kan.

Answer—Replying to yours of the 15th ult., the Delco machine on the Buick car runs at a speed 50 per cent higher than that of the crankshaft when operating as generator, and at a



A South American Salesroom

much higher speed, relatively, when operating as a starter.

The speed of generator is one and one-half times crankshaft speed, the crankshaft pinion having one and one-half times the number of teeth as the gear on the pump shaft, through which the generator is driven.

As a starting motor, the Delco machine makes about 18 turns to one turn of the crankshaft. There is a 12-tooth pinion on the starter shaft, which meshes with an intermediate gear, and a second intermediate gear on the same shaft, with half the number of teeth of the

first one, meshing with the flywheel gear.

2—On the 1920 Buick models, Timken roller bearings are used in the front wheels, and New Departure ball bearings in the rear axle.

A Word from India

Editor Motor World: May we trouble you to communicate with the manufacturers of Norwalk motor cars? Our desire is to have an illustrated catalogue containing full specifications of their various models, mentioning the prices and discounts, also the terms on which they would like their productions to be represented by a sole agent in the Bombay and Rajputana districts.

We also would be glad if you would advise manufacturers interested to furnish us with catalogues containing specifications of cars, motorcycles, trucks, etc., which are not now represented in the Bombay Presidency.—Reliance Motor Works, Ltd., K.B., Manager, Bombay, India.

Many Helpful Suggestions

Editor Motor World: We would not be without Motor World for three times the subscription price, as there are many helpful suggestions in same. We do not see how any garageman can get along without this wonderful magazine.—J. N. Ashman, Jr., John N. Ashman & Son Garage, Stelvideo, Ohio.

Ernest S. Connors

Ford Automobile Tires, Parts and Accessories

Complete Stock of Gasoline, Lubricating Oils and Greases

St. Francis, Maine

Here is the letterhead designed for Ernest S. Connors of St. Francis, Me. Mr. Connors operates an exclusive Ford accessories store. Have you a request similar to his? Write to Motor World and an effort will be made to prepare you a suitable letterhead at once



SCIENTIFIC CONSTRUCTION

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GARAGES

THE BUILDING PROBLEM IN THE CONTROL OF THE PROBLEM PROBLEM PROBLEM PROBLEM PROBLEM CONTROL OF THE PROBLEM PROBLEM CONTROL OF THE PROBLEM PROBLEM CONTROL OF THE PROBLEM PROBLEM PROBLEM CONTROL OF THE PROBLEM PROBLE

SHOWROOMS

REPAIRSHOPS

Plan No. 1

One Story 100x160 Ft.

Character of business—Ford sales and service.

Details wanted—One-story building 100 x 160 ft., salesroom, office, parts and accessory room, storage space, service department.

Name—Rochelle Motor Co., Rochelle,

Answer—We have been at some difficulty in endeavoring to prepare garage plans for your company, as recently requested, owing to an uncertainty as to whether your building was an inside one or whether upon a corner. However, a plan for a one-story building has been drawn on the assumption that it faced a street only upon the front. The plan consequently calls for only one car entrance, that running the length of the building to the shop which was placed in the rear. Storage thus was provided for 52 cars, with what would seem to be sufficient space allowed for the other company activities.

In the event of frontage upon another street, the plan may easily be changed to permit of double-doored entrances to the storage rooms and the shop. The advantage of such a factor should not be overlooked in arranging window displays in the showroom, where large plate glass windows would be the obvious construction. The stock room is placed so that it fronts the street, rather than the office,

MOTOR WORLD is glad to receive and answer inquiries for garage plans, but in order that there may be as little delay as possible in submitting the plans desired it is imperative that the following information be given:

Size of plot, with rough sketch showing shape and its relation to adjoining plots; name and number of departments operated; number of cars to be shown in salesroom; number of cars in garage; any other pertinent details.

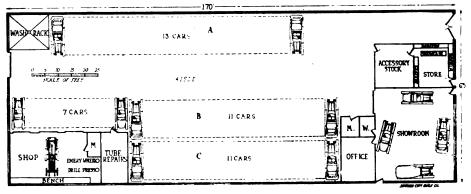
for the possibility of adding to further displays. With such a breadth of front, some of which would be devoted to the automotive accessories department, you should make leaders out of that line, as the two windows would enable you to keep your goods well in the public view at all times. Many garages have been built with little attention paid to that feature

Plan No. 2

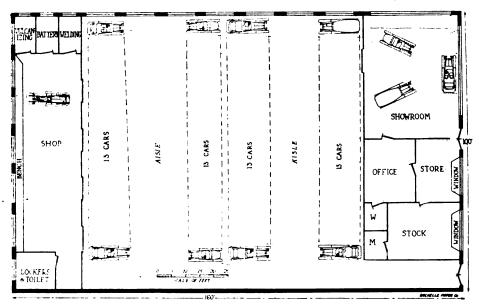
Two Showrooms Not Advised

Character of business—Buick sales and service.

Details wanted—One-story building 60 x 170 ft., entrance from back and front and alley running along the



Plan No. 2—One-story building, 65 x 170 ft., with front and rear entrances, for the Johnson City Buick Co.



Plan No. 1—Sales and service building, one story, 100 x 160 ft., designed for the Rochelle Motor Co.

full length of the building. Figure on having two showrooms, one at each corner of the front with doors in between to drive in.

Name—Johnson City Buick Co., Johnson City, Tenn.

Answer—We do not see the advantage of having two showrooms. It necessitates much running back and forth between them and certainly four cars can be displayed to better advantage in one large room than in two small ones.

We have added an accessory store because we feel that you will want to sell accessories and a store is as necessary for this purpose as a showroom for cars.

The garage space we have provided accommodates 47 cars. Undoubtedly you are familiar with the arrangement, which is the most desirable one for a plot 60 ft. wide. Cars in row B should be those which go early in the morning; cars in row C those which go late; and cars in A are ones which cannot be put in B or C.



Plan No. 3

A Complete Two-Story Dealer Plant

Character of business—Sales and service.

Details wanted—Lot 80 ft. on main street, 150 ft. on side street, building to be 80 x 130 ft., two stories high.

Name—Sturtevant-Jones Co., Lima, Ohio.

Answer—There are many questions regarding this building which we should have liked to talk over with you, but judging from the size of the building and the requirements of your town we felt it advisable to make a layout for a complete dealer plant, including not only showroom, shop and garage, but also an accessory store, accessory stock room as well as special rooms in the shop for battery work and vulcanizing.

Ordinarily the driveway from the front entrance to the elevator would be left clear, but when the garage is crowded this driveway space may be used for storing cars as indicated.

Plan No. 4

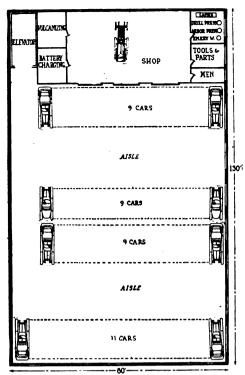
A Ramp Not Advisable

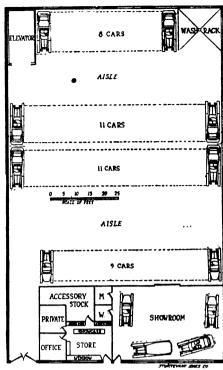
Character of business — Repairing, storage, accessories, vulcanizing.

Details wanted — Two-story garage, 50 x 150 ft., front and rear entrances, rear entrance on an 18-ft. alley. Would a ramp or an elevator be preferable in this case? If a ramp is used, what should the grade be?

Name—McClain Garage, West Palm Beach, Fla.

Answer-In your particular case an





Plan No. 3—Two-story sales and service building, 80 x 130 ft., on lot 80 x 150 ft., for the Sturtevant-Jones Co.

elevator would be much better than a ramp and therefore we have chosen the former. To use a ramp would restrict the storage space considerably and this disadvantage more than offsets the advantages of the ramp over the elevator.

Your plan does not include a showroom for the reason that you did not ask for one and your letterhead gave no indication that you deal in cars.

However; you will find that handling one or more lines of passenger cars, some accessories and perhaps a truck line will give you other sources of profit.

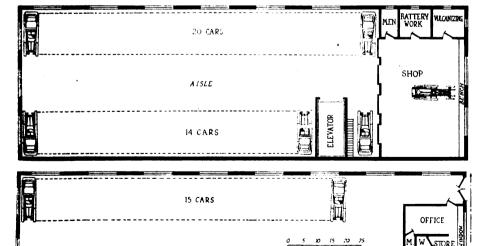
Service Club in Winnipeg

"Quicker and Better Service" is the way Manager W. E. Garnett of the Motor Products Co., Winnipeg, Man., described the results to be attained by the service club formed among their customers. The club, which is the first of its kind, is already proving a decided success. Already hundreds of Winnipeg motorists are driving cars with a small round transfer disc on the windshield, which signifies membership in the club. The disc has a number in the center and the name of the company around the edge.

Every customer who joins the club gets a separate number. These numbers are tabulated in the company's office at the Travelers Building, and under each number are the car owner's name and particulars regarding every piece of equipment on his car.

Manager Garnett stated that while many customers thought they knew all about their machines, they were unfamiliar with the technical details and when in trouble were unable to order repairs intelligently. If any of the members of the new club are in difficulties, a phone call to the company's service station, giving the club number on the car and the description of the repairs needed, will enable the company to send the part required with a certainty that it is what is required. Everything, from the size in tires to proper bulb for the lamps, can be checked under the car owner's name.

Although it is proposed to handle members to the capacity of the service station, the numbers issued will be limited to between 1000 and 1500. Numbers are being issued at the rate of nearly 100 a day.



Plan No. 4—Two-story garage, 50 x 150 ft., having front and rear entrances.

Designed for the McLain garage

Repairshop Shortcuts

From Motor World Mechanics

No. 2296-TUBE DEFLATER

A quick-acting tube deflater is made from an ordinary valve cap, in the sides of which are drilled a series of holes to permit the air to escape. A brass wood screw is forced into the head and cut off such a length that when the valve cap is screwed on to the valve stem the shank of the screw will push down the valve stem, allowing the air to escape through the holes of the cap.—Robert Liebrich, Indianapolis, Ind.

No. 2297-LONG COLD CHISEL

A long cold chisel for chipping bolts, rivets, etc., in cramped places, can be made from a Ford drive shaft. The end is flattened out and shaped like a cold chisel and sharpened. It is then heated to a cherry red, dipped in water and tempered a light straw. In some cases the chisel may be used by two men, one holding the chisel and the other wielding the sledge.—Ralph Southworth, Dundee, N. Y.

No. 2298—WATER CONTAINER AND HYDROMETER HOLDER

A distilled water container and hydrometer holder is made from a discarded rubber battery jar about 8½ in. high. A piece of hard rubber large enough for the cover is trimmed to a snug fit and forced ½ in. into the jar, and over this is poured sealing compound. After the compound has set, the cover is warmed with a flame and a hole just large enough to prevent the hydrometer from touching the bottom of the jar is cut through. This container keeps the distilled water clean and prevents injury to the hydrometer by always keeping it in an upright position.—R. E. Walker, Willard Service Station, Hannibal, Mo.

No. 2299—ACID SIPHON

An acid siphon for removing acid from a carboy is made from 5 ft. of % in. short rubber tubing. A double-ended rubber bulb and two short pieces of ¼ in. hard rubber tubing complete the device. The piece of hard rubber tubing is inserted in each end of the bulb and one end of the soft tube is slipped over one end of the hard tube. The other end of the soft tubing is notched to prevent its clinging to the bottom of the carboy. The carboy is set on blocks to bring it to the desired height and the notched end of the tubing is placed in the acid. Pressing the bulb and holding the finger

MAKE A DOLLAR

HOW often have you been compelled to rack your brain to overcome some difficulty? But when you did find a solution—what satisfaction it was! Well, here's a chance for you to dig some of those life-savers out of their hiding places and put them to work for your fellow-craftsmen. Send them to Motor World. We will pay a dollar for every one accepted for publication.

The only requirements are these:

1—Describe the shortcut briefly but clearly, in few words.

2—Send a sketch, showing as clearly as possible the construction of the device and how it is applied to the job you are talking about. If necessary send two or three sketches. WE MUST KNOW HOW THE DEVICE WORKS. When a shortcut is applied to a car it is sometimes easy to tear a page out of an instruction book indicating on one of the pictures just where and how the device is applied.

3—If convenient, send one or two Kodak pictures. This is not really necessary, but it will enable us to quickly grasp your idea and may insure the acceptance of a shortcut which may otherwise be confusing.

4—Sign your name and initials, the name of the company you are with, and the town.

Write plainly. If your name is unusual, print it in capital letters.

over the open end of the tube forces the air out of the long rubber tube and upon releasing the bulb a vacuum is formed which brings down the acid when the finger is removed. The flow of acid is stopped by squeezing the tube.—R. E. Walker, Willard Service Station, Hannibal, Mo.

No. 2300—BATTERY POST SCRAPER

A battery post scraper is made by bending a file into the shape shown in the illustration, and attaching a handle to it. The bent end is shaped down to a scraper and sharpened on the edge This may be either pulled or pushed to scrape the battery post.—Kelsie Click, Fostoria, Ohio.

No. 2301—REMOVING BROKEN VALVE CORE

A broken valve core is removed from a tube by directing the flame of a blow torch on the tube for a short time and then turning the broken core out with a pair of pointed pliers. The heat melts the rubber and loosens up the parts that are stuck so that the stem can easily be turned out.—Byron C. Adams, Adams Garage and Machine Shop, Knox, N. Y.

No. 2302—CLEANING THREADS ON AXLE NUTS

The marred threads on axle nuts can be straightened out by using an old spindle bolt. The temper is drawn and four slots are filled as shown in the illustration. The spindle bolt is then hardened and used as a tap in the ordinary way.—Byron C. Adams, Adams Garage and Machine Shop, Knox, N. Y.

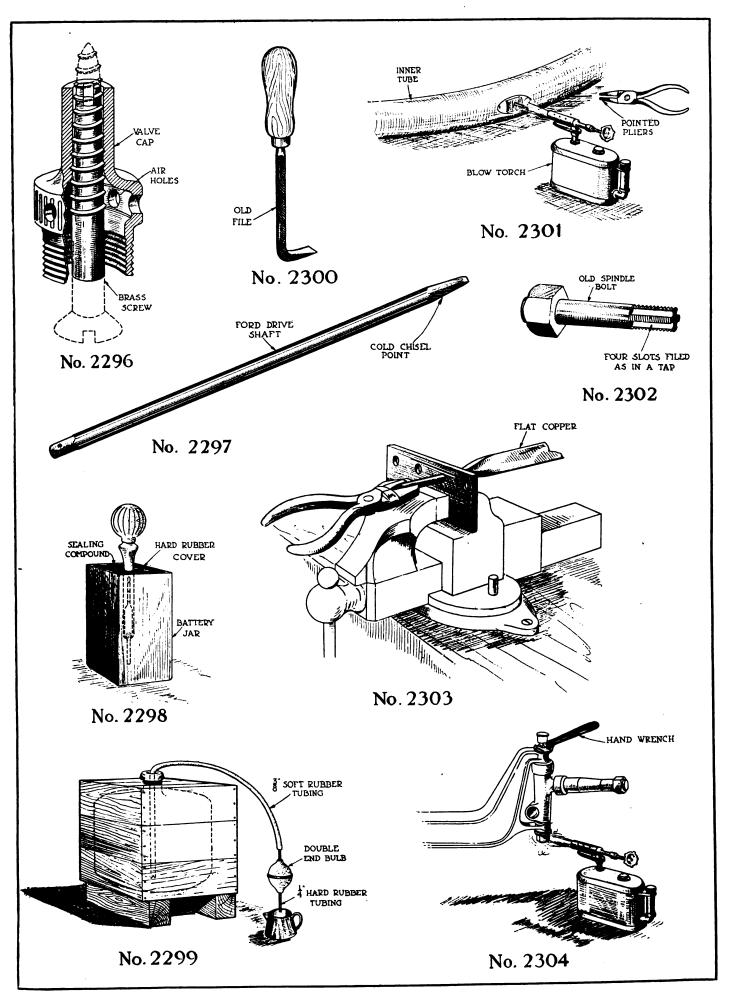
No. 2303—FORMING COPPER TUBING FROM SHEET COPPER

Copper tubing can be formed from sheet copper by drawing it through a plate, as shown in the illustration. The plate is made of hard steel with several holes of various sizes, which have been drilled before the plate was hardened. The copper is then drawn through the hole and this forms it into a tube. This tubing, of course, will have an open seam and if it is desired to make a tight seam it will have to be soldered or brazed. The open tubing, however, can be used as a protection for electric wire, etc., which goes through holes in frames.—J. H. Moore, Toronto, Canada.

No. 2304—LOOSENING SPINDLE BOLTS

A spindle bolt is loosened by directing the flame of a blow torch at the nut on the bottom while a hand wrench is placed at the top. Care should be taken, however, not to heat this part of the axle too much, as the axle is heat-treated, and if a temperature above the boiling point of water is reached, the axle will be softened and a serious accident may result.—Byron C. Adams, Adams Garage and Machine Shop, Knox, N. Y.





RETAIL NEWS

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Frank O. Renstrom Co., Van Ness and Golden Gate, San Francisco, Cal., has been appointed distributer in California and Nevada for the Minneapolis Steel & Machinery Co., Minneapolis.

Douglas Boswell Co., Sacramento, Cal., has taken the agency for the Acme line of trucks for the states of California and Nevada as far east as Elko county.

W. Krause and Jess Fontaine, San Francisco, have opened the Dri-Kure Tire Shop at 61 McAllister Street. Krause was formerly connected with Denny & Krause at 1942 Van Ness Avenue.

E. Hachmelster, San Francisco, has become part owner of the Park Garage at 636 Schrader Street, and will have charge of the repair and service department.

H. E. Ward, Concord, Cal., has been appointed Goodyear tire dealer for that locality.

Geo. Gibson, Concord, Cal., tire and accessory dealer, has moved to larger quarters on Main Street, and added a battery department with the agency for Columbia batteries.

L. Willock, Vallejo, Cal., has opened a repair shop and garage at 419 Sonoma Street.

The Golden State Garage, Vallejo, Cal., has been opened with a complete repair department at 616 Sonoma Street.

J. F. Windiate and A. G. Rogers, Vallejo, Cal., have leased the California Garage at 533 Carolina Street, and besides repair and accessory departments will have salesrooms for the Oakland and Stephens cars and U. S. trucks.

Washburn Bros., Martinez. Cal., have secured the agency for the Buick, Chevrolet and Scripps-Booth cars and will maintain mooms and, service station on Main Street.

The Martinez Vulcanizing Works, Martinez, Cal., have been opened on Ferry Street.

L. O. Jack, San Jose. Cal., has opened a tire shop at 82 East San Fernando Street, and will distribute McLain tires and Racine

chased the Empire Garage in Toppenish, Wash. The building will be remodeled, and Ray McLean, who has been operating the Speck G. M. C. garage in Toppenish, will be in charge. Jimmy Ball will manage the service end of the business.

NORTHWEST

C. A. Gerard, Grinnell, Iowa, has bought an interest in the Gates Half Sole Tire Station at Grinnell. Iowa.

bought the Lincoln Highway garage from W. A. Millard.

G. C. Metcaif, Sheldon, Iowa, has sold his Ford agency and garage building to Mel Oostenberg and Martin Roggen. The new concern will be known as the Obrien County Auto Co.

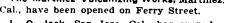
E. J. Miles & Co., Newton, Iowa, have bought the Crum Auto Co., Monroe, Iowa.

Carl Moir and George A. Moir, Le Mars, lowa, are the new owners of the lowa Motor Sales Co.

W. G. Chester, Creston, Iowa, has sold his

Guy Warner, Buffalo, Minn., has sold his

E. C. Parsons Automobile Co., Warren,



Speck Buick Co., Seattle, Wash., has pur-

Vana Brothers, Montour, Iowa, have

I. R. Thomas, Adair, Iowa, has sold his Ford garage to Del Rosenberger, of Guthrie

garage to Matt Conway.

Lakey & Sturgis, Estherville, Iowa, have bought the Cooper garage.

garage to Risdall Bros., Grove City, Minn.



A corner in the Dort factory branch in New York, the first venture in the branch line by Dort manufacturers

Minn., has succeeded R. M. Gilbert of the Warren garage, who has sold his business to E. C. Parsons of Litchfield, Minn. The company will sell the Paige and Maxwell cars.

Odin Odegard, Princeton, Minn., has bought the garage which he now operates from T. H. Caley.

John Nelson, Wabasso, Minn., has bought the interest of his partner, Walter Jensen. in the Nelson & Jensen garage business.

H. O. Otterness, Dodge Center, Minn., has bought the Main Street Garage and will continue the business. He is from Kasson, Minn.

F. E. Rima, Park Rapids, Minn., has organized the Rima Motor Service Co., and will be manager.

Frank Dooley, Belle Plaine, Minn., has retired as president of the Belle Plaine Auto Co., of which he was also manager. A new firm will be organized.

The H. T. Simonson garage, Kenyon. Minn., has been sold to E. T. Anderson of the Anderson Motor Co., Faribault, Minn., and the garage hereafter will be the local Ford sales and service station.

H. A. Smith, Elbow Lake, Minn., has sold half interest in the Pioneer Garage to F. E. Mau of Sedan, Minn.

Carl Trabant and Paul Held, Jr., St. Cloud. Minn., have formed the firm of Trabant & Held to deal in automobiles on Second Street

The Knudson Auto Co., Duluth, Minn., has been incorporated for \$200,000 by Alexander H. Davis and K. M. Hoff.

Reishus & Ekse, Hopkins, Minn., have dissolved business in the Dodge Garage and I. E. Ekse will be proprietor.

H. F. Meyer & Son, Sleepy Eye, Minn., has bought the Wooldrick East End Garage.

The Duluth Retreading Co., Duluth, Minn. has opened an automobile business at 320 East Superior Street, and will sell the Olympian car.

William Arnold, Crookston, Minn., has bought the Red River Rubber & Tire Co. South Main Street, from W. F. Peterson.

T. H. Simonson, Kenyon, Minn., has sold his garage business to John Neseth, who has returned from service overseas.

SOUTHWEST

J. F. McNullen, Inman, Kan., has purchased the stock of the repair shop of J. C. Quiring, which he will move to Hutchinson.

The Tire Service Co., Ottawa, Kan., is to be incorporated as a stock company under the name of the Jennings Tire Service Co., Jennings & Sons of Kansas City, Kan., having become identified with the firm. This is the first of a chain of service stations throughout Kansas to be operated by the Jennings company. The Ottawa branch will continue to do repairing and rebuilding and will also handle several lines of tires.

The Gould Battery Station, Parsons, Kan., handling the Gould battery, has opened for business under the management of H. C. Olson.

The Wichita Automobile Co., Wichita. Kan., will erect a \$40,000 three-story building on North Lawrence Avenue. The building will be 87 x 140 ft., of reinforced concrete.

Mustard & Hartenbower, Eureka, Kan., have purchased a site on which they will build a service station, 50×100 ft.

Joe Trembly, Arlington, Kan., is installing a repair shop for Ford work exclusively.

Porter & Snyder, Topeka, Kan., will have the agency for the Reo and Stearns-Knight at 634 Quincy Street.

Vernon Cornwell and Arthur Budge, St.



Johns, Kan., will open a battery and vulcanizing station about Oct. 1.

J. C. Helbach, J. C. Wilkes and R. W. Helbach, Ardmore, Okla., have organized the Western Motor Co. Roy Cowan will have charge of the service department.

The Roffall-Benson Co., inc., of Houston, Tex., has opened a painting and trimming shop, which occupies the second and third floors of the building occupied on the first floor by the A. P. Sullivan Overland Sales Co.

Lem Carlyle, Hereford, Tex., will open a tire and accessory shop and filling station.

The Ezry Auto Rims Co., Vinita, Okla., has been chartered with \$350,000 capital by N. E. Bowden and Guy Ater, both of Fort Worth and Preston, and S. Davis of Vinita.

MIDDLE WEST

L. Worthington, Flint, Mich., has bought the garage of Wortman Wilson of Fenton. He was formerly with the Buick Motor Co.

Benjamin Brown, Charlevoix, Mich., owner of the Brown Garage, and formerly distributer of the Overland and Oakland, has become agent for the Chevrolet. He has purchased a site for new and larger quarters at Bridge and Mason streets.

S. D. McKillop, North Branch, Mich.. Ford distributor, has purchased a site on Huron Street, where he will erect a one-story showroom and garage, 60 x 100 ft.

The Wittle Garage, Gobleville, Mich., has been purchased by O. Kelley and B. Turner.

D. H. Padley and Frank Burch, Milford, Mich., are putting up one-story garages in that town.

Leon Hynes, Woodland, Mich., has taken over the storage building of R. D. Dillenbeck and is remodeling it into a garage and repairshop.

The Beck Motor Sales Co., Toledo, O., is erecting a new \$100,000 Ford service and sales station at Cherry Street and Spielbusch Avenue. The new structure will be read for occupancy Dec. 1.

The Hollier Motor Sales Co., Detroit, has been appointed distributer for the Hollier in this city and vicinity. The officers of the new concern are: President and sales manager, A. H. Bird; treasurer, Charles F. Ruehle; secretary, S. Abrams.

The Grand Rapids Overland Co., Grand Rapids, Mich., western Michigan distributer of the Overland and Willys-Knight, has secured the agency for the Acme truck for the same territory.

The Leonard B. Orloff Co., Detroit distributer of the Standard, has opened a branch in Toledo at 106-8 Twelfth Street with the Throne Auto Co. Fred Amsbary, Detroit, is in charge of the branch.

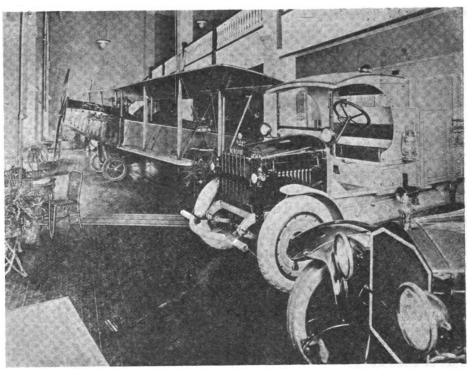
The United Motors Co., Toledo, O., has opened salesrooms in the old Twenty-first Street Garage. Frank Noblitt is the manager. The Toledo store will be conducted as a factory branch.

The Cartinhour-Bowman Co. Indianapolis. has contracted to distribute the Huffman truck in Indiana.

The Rheinhart Sales Co., Indianapolis, has taken over the distribution of the Sterling truck.

The Auburn Sales Co., Indianapolis, has taken the agency for the Traffic truck.

The Master Truck Co. of Indianapolis has been named the Indianapolis agent for the Four Wheel Drive Auto Co., Clintonville, Wis. The Indianapolis agency is a branch of the Indiana Wagon Co., State distributer, with branches also at Ft. Wayne and Terre Haute.



An Airplane "at Home" with Cars and Trucks

The picture is in the salesroom of W. K. Johnson, Montgomery, Ala., dealer in automotive vehicles and Curtiss planes

The McGee Motor Sales Co., Indianapolis, has become distributer for the Stearns car and has opened a sales and service station at 427 North Meridian Street.

The Detroit Electric Saies Co., Indianapolis, is distributer for the Templar car.

EAST

Frank L. McKinney, Wilmington, Del., of the motorcycle firm of Mountz & McKinney, who enlisted in the motor transport service, has returned to Wilmington and opened up a business of his own at 515 Tatnall Street. where he will deal in motocycles and accessories.

Harry M. Landaw, Wilmington, Del., has taken over the Hotel Stoeckle garage, at Front and French streets.

C. Beatty Beam, Springfield, Mo., is the new owner of the business of the Rubber Tire Supply Co.

Daniel P. O'Connell Garage & Storage Co., inc., Albany, N. Y., has been formed with a capital of \$50,000, by D. P. O'Connell, J. J. Barry, Sr., and J. F. Burns.

Equitable Motor Truck Co., New York, has been formed with a capital of \$50,000, by Max Monfired, E. M. Bernstein and J. C. Barron.

The Maccar Motor Truck Co., Baltimore, Md., has opened quarters at 1010 West North Avenue, to handle Maccar sales in that territory. Its president, Frank S. Rosebery, was formerly western sales manager of the Maccar Truck Co., Scranton, Pa., and previous to that was general sales manager of the Service Motor Truck Co., Wabash, Ind. P. L. Criblet is secretary and treasurer.

The Triangle Motors Co., Boston, handler of the Moon for this territory, has opened salesrooms at 1098 Boylston Street.

The McGraw Tire Co., Boston, has reestablished its New England branch, and it is now at 1100 Boylston Street.

NEW GARAGES

Fred Hasty (50 x 100)......Lanesboro, Iowa Cornbelt Motor Co. (55 x 140)

Webster City, Iowa Harold Wilson......Grundy Center, Iowa Florine Garage (50 x 100)....Cherokee, Iowa Weldinger & Lieuwen West End, Iowa Thomas & Moore.....Oskaloosa, Iowa Austintown Garage Austintown, Ohio Liberty Garage (60 x 100).....Liberty, Mo. W. W. Grider......Mexico, Mo. Highway GarageGross, Kan. Payne Brothers (75 x 90).....Duncan, Okla. J. C. Fugitt......Fayetteville, Ark. Charles T. Hill......Independence, Kan. F. W. Temple.....Broken Bow, Okla. Beal Brothers......Wakefield, Kan. J. S. Price (35 x 100).....Oakley, Kan. Reheis & Hawks......Douglas, Kan. Dan Hall Houston, Tex. Jess Elliott, R. M. Berkebile.. Wilmot, Kan. George E. Taylor.....Elkhorn, Wis. Guenther & Storm......Beaver Dam. Wis. J. D. Casey Co. (50 x 90)...Watertown, Wis. Jos. Van Beek (30 x 120).....Barton, Wis. Best-Hall Motor Co. (30 x 120)

Random Lake, Wis. Klinger & Mayer (60 x 145)

Watertown, Wis.

August Berg (45 x 130)



THE LAW

By George F. Kaiser

Perplexed?

Does some point of law perplex you? Why don't you ask Motor World's legal editor to discuss the question?

Responsibility for Tire Theft

Editor Motor World: We wish you would advise us through the columns of your magazine, letting u. know the issue you will publish the answer to the law to cover the following case:

About the 22nd of June, 1919, there was held in this city a big race meet that attracted many visitors. Also about this time, this state went dry and the city was full of strangers and intoxicated people We own and operate a garage in which we take cars for storage by the day, week, or month. On one of these nights, a customer who lives in this vicinity drove his car into the garage some time after midnight after he had been at a dance in one end of town, that is away from the business center. In the forenoon of the following day he called for his car and, upon driving it out, discovered that some one had cut the two straps holding a new extra casing on the rear. There were two new casings but only one had been stolen.

He stated that he had been at a place known as the Sheridan Inn until about 2 a. m. and had been dancing and that he went out and looked to see if his tires were still hanging on the car. He claims that the tire was stolen in our garage. When his car came in it was parked with the rear end against the wall with a car close in on both sides. All doors but the two front ones are closed. A night man is on duty all night and we claim it would not be likely that the theft occurred in the garage but that the tire was taken of when the car was parked at the dancing place. While this place is in a nice neighborhood, it is across the street from the railroad depot. in the railroad neighborhood, and the side where the car was parked is rather dark.

We have lost this customer but would appreciate very much if you will publish your opinion in our case.—Moore Garage Co., Sheridan, Wyoming.

Answer—Of course, if suit was ever started against you by your customer for the loss of the tire, the whole question in the case, whether or not the tire was stolen while in your garage, would be for the jury to decide. I gather from your letter that the car owner would not swear that the tire was on the car when he returned it to your garage. On the other hand, your men are not prepared to swear that it was not on the car. Under all the circumstances, I do not believe that you would have anything to

fear in a case of this kind. You say that all the doors except the front ones were locked and a night man was on duty. On the other hand the owner had left his car standing outside until early in the morning. Any reasonable man would conclude that the tire was stolen while the car was standing outside of the inn and not while it was stored in the garage. I might add that jurors are sometimes reasonable men.

Florida Lien Law

Editor Motor World: Would you mind printing the law for Florida concerning shopwork on automobiles?

If I do a job and furnish supplies for same and the owner takes car from shop and does not pay bill, whether agreed or not, can I collect the whole bill from the next job? Can I go and get car and hold it for pay, or do I have to take chances of getting my pay? Can a man sell a car which he owns but which has a garage bill against it without making the purchaser liable for the amount of This last may seem a foolish question, but as I see it the bill for work and supplies is against the car itself and not the man. Please give me all the light you can on the subject.-Wade Bros. Garage, Box 157, Hillard, Fla.

Answer—Under the Florida law you lose your lien if you give up possession of the car. The car can be sold and good title given even if there is a bill for repairs against it. Of course, the above is all wrong but it is so because garage men in Florida have not bothered to get together and have a proper statutory lien law.

As the law stands, at this time any person has a lien on personal property when he performs any labor upon or with any engine, machine, apparatus, fixture or implement, or upon such engine, machine, apparatus, fixture or implement, and for manufacturing, repairing and altering articles or things of value. Suit must be brought on claims of this kind within 12 months from completion of the work or the furnishing of the last item of material.

Declared Contract Void

That a manufacturer and dealer contract which provides that the dealer shall not recover for loss of profits due to the manufacturer's failure to fill orders is void and uninforceable, was decided in a recent case before the Supreme Court of Arkansas.

Suit was started by the manufacturer against the dealer. It appeared that the dealer had ordered two trucks which had been delivered and an additional truck, delivery of which had been refused by the manufacturer. One promissory note for \$1,250 had been given by the dealer and paid, another note given as part payment on the trucks was not paid and it was on this note that the suit was brought.

The contract contained this clause:

"To ship any and all cars ordered from it by the dealer within thirty (30) days from the receipt by it of orders for the same: Provided, however, the company shall not be liable in any way for failure or delay in making shipments caused by strikes, fires, or other causes beyond its control, or delays occurring in the manufacture of its product or in the manufacture and delivery of parts thereof, and the company shall not be liable for any loss of profits or damage for its failure to deliver goods ordered, or for the cancellation of this agreement."

The court held that, under decisions in the various states to date, contracts having clauses similar to the one above must be held to be void. The judgment in favor of the dealer allowing him credit for the unapplied portion of his deposit was affirmed. Weil vs. Pneumatic Tool Co. 212 S. W. (Ark.) Rep. 313.

Question of Garage Test

When a car owner leaves his automobile at a garage for repairs he is not responsible for the negligence of repairman in driving a car to test it.

An automobile driven by a repairman collided with another on a public highway. Suit was brought by the owner of the other car against both the repairman and the owner. It appeared that a few days before the owner had taken the car to the repairman's shop where it had been repaired. At the time of the accident it was being tested, the owner having instructed the repairman "to take the car out."

The court held the fact that the owner directed the repairman "to take the car out" did not make him liable, as the repairman either took the car out to test it or use it for his own purposes, and in either event there was no liability on the part of the owner. Thorn vs. Clark, 177 N. Y. S. 201.

Automotive Equipment

ASSEMBLER'S PUNCH

This is a 10-in. tapered punch for drawing bolt holes in line permit easy insertion of bolts. It has a knurled handle. and is made of 1/2-in, stock. Price \$1.05.-John Millen & Son, Ltd., Montreal, Canada.

ROGERS MAGNETO

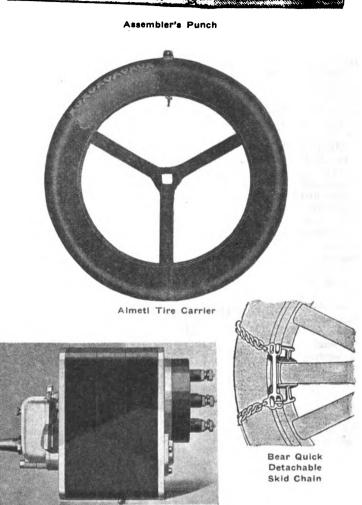
This magneto has an extended magnetic area which is designed to make a hotter spark. It is made in a number of different models to include all engines from 2 up to and including 12 and 16 cylinder engines of either single or 2 spark type. The coil is both waterproof and accessible. On the 2, 4, 6 and 8 cylinder models 2 sparks are produced per revolution of the rotor shaft. On the 12 and 16 cylinder types there are 4 sparks per revolution and on the 12 and 16 cylinder of the 2 spark type there are 8 sparks per revolution.—Vita Mfg. Co., 703 Will-lamson Building, Cleveland, Ohio.

SCALZI RADIUS ROD BRACE AND SUPPORTER FOR **FORDS**

This is a radius rod brace and supporter for Fords and is designed to stabilize the turning motion of the front wheels and prevent twisting of the front axle. The two rods are attached underneath the front axle and are bolted tightly in place close to the wheels, the rods uniting at the rear of the radius rod. Price \$3. Tab Specialty Co., Factory and Warren Streets. Trenton, N. J.

ALMETL TIRE CARRIER

This is a metal carrier attached by four nuts and bolts. It is made of cold rolled sheet steel and is in two parts, the parts being separated by a slight twisting motion. It will accommodate any 31/2 in. tire and rim and is made to carry either one or two tires. There



Rogers Magneto

are two styles of brackets, one for use on the side and the other for use on the rear. It is especially adapted to the Ford car but will fit other cars having 3 or 31/2 in. tires. Price \$14 complete with brackets. Almetl Accessories Corp., 106 Seventh avenue, New York City.

BEAR QUICK DETACHABLE SKID CHAINS

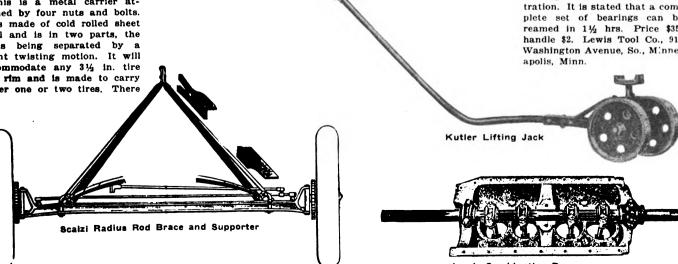
These are skid chains in pairs, each pair being attached by means of a quick-acting clamp which goes around one of the spokes. No tools are needed to apply the chains and it is not necessary to jack the car up, as the car can be rolled along to attach the successive sets. Prices range from \$8 to \$15 per set of eight sections. Bear Mfg. Co., Rock Island, Ill.

KUTLER LIFTING JACK

This is a lifting jack for garage use. It is adjustable to three different heights, and is made especially for Fords and other light cars. The lifting capacity is 2700 lb. and to operate the handle is tilted upward, the wheels pushed under the car and pressed downward to the floor. Price \$15. Kutler Mfg. Co., Bryan, Ohio.

LEWIS COMBINATION REAMER

This is a connecting rod and main bearing reamer for Fords. It has three cutting surfaces so placed and of such lengths that all three main bearings can be reamed out at once and by moving the reamer up a little bit two of the cutting surfaces will ream four connecting rod bearings as shown in the illustration. It is stated that a complete set of bearings can be reamed in 11/2 hrs. Price \$35, handle \$2. Lewis Tool Co., 915 Washington Avenue, So., Minneapolis. Minn.



Midwest Utilitor

For the Small Farm

ERE is a small combination tractor and stationary engine which offers seiling possibilities to the dealer, particularly if his territory is in a small farms section.

As a tractor it will plow, harrow, cultivate, mow the lawn, pull small loads or do any work that can be done by one horse or mule. As a stationary engine it will saw wood, pump water, grind feed, turn grindstone, run a separator or churn or do the work of any 4-hp. stationary engine. It is called the Midwest Utilitor and is the product of the Midwest Engine Co. of Indianapolis, Ind.

The engine is of the single cylinder type, 4 cycle with L-head and a bore and stroke of 31/2 x 41/2 in. The normal speed is 1200 r.p.m. at which, the makers say, the belt horsepower is 2-4 and the draw bar horsepower 11/2-2. This motor is mounted between the two driving wheels which it propels through two positive clutches. These clutches are used for steering, one being released to effect a

An Eisemann high tension magneto is fitted and a short circuit button provides an easy means of stopping the engine quickly. Thermosiphon water cooling with honeycomb radiator and fan is employed. The carbureter is equipped with

dry air cleaner and all moving parts are carefully protected against dust and

The gear ratio of 35:1 gives a plowing speed of 2½ m.p.h.

The weight of the complete tractor is 700 lb.; its length over all, 84 in.; its width 171/2 in., and its height 36 in. It is designed to pull one 7-in. plow and has a 4%-in. belt pulley for driving other machinery.

The wheels are fitted with quick detachable rims which have lugs riveted to them. The removal of these lugged rims, which can be accomplished by the loosening of a few bolts, leaves the tractor with smooth rims for road work or other good going.

The price of the Utilitor complete with magneto, air cleaner, 16-in. castor wheels, standard or cultivating quick detachable rims, belt pulley and double clutch is \$345 f.o.b. Indianapolis.

Service Dominant Idea of Truck Dealer

The Burrell Engineering & Equipment Co. is a new organization entering the distribution of motor trucks in the Kansas City territory, with a "big idea." The idea is "service."

The company was formed by stockholders and officers of the Burrell Engineering & Construction Co., headquarters at Chicago, with branch offices at Kansas City and elsewhere, builders of hundreds of large elevators and mills, and "service" engineers for manufacturers. The company is distributing Patriot trucks and Hebb truck bodies in Western Missouri, Kansas, Oklahoma and



Operating a disk harrow with the Midwest Utilitor

part of Texas. Much of the retail selling will be through the company's branches that already have been established at Wichita, Topeka, El Dorado and Pittsburg, Kansas; Bartlesville and Tulsa, Okla., and Kansas City. The headquarters will be in Kansas City.

Stress is laid on service, especially through the employment of graduate mechanical engineers in charge of branches, and care in employment of mechanicians. Chief of service is Herne W. Hall, commander of a machine-gun company overseas; master mechanician is William H. Weymouth, tester and expert on battle planes overseas. Weymouth is one of five fliers in the company's employ in sales and service departments, who will at times cover the territory in planes owned by the company. The company, in planning its future, is anticipating service on airplanes. It is not confining its mechanical service to the truck it handles. There are plans also for an inspection service on motor truck fleets, distinct from the business of the mechanical stations.

Bone!

A farce in one act. (One act is enough.)

Scene-A dealer's place of business.

(Misleading actor—Salesman(?)

Salesman-"Boss, have we any used trucks for sale?"

Boss-"Yes." Scowling, takes charge of customer, orders salesman to show customer truck.

Salesman-"Where is it?"

Boss (looks about excitedly)-"Guess it's in the basement.'

Salesman disappears.

Another salesman (?)—"What's the price of our Sedan?"

Boss-Looks up, excuses himself to the truck prospect and says: "\$4,000."

Salesman goes on with customer.

Boss-"Where's John?"

Salesman-"Gone to lunch."

Boss-"Where's Fred?"

Salesman-"Don't know."

Boss-"You here all alone?" to the salesman.

Salesman—"Yes."

Boss—"Guess I'll have to stick around."

The answer:

1-First salesman not even a clerk. Second salesman lacks knowledge about business-a reflection on the stability of the establishment.

2-Boss shows weakness in proper business management by having an ass on the job.

3-House selling merchandise at prices as high as \$4,000, with four men lacking knowledge at least of prices, is in the wrong business.

Moral-When trying to sell high-class merchandise, be a business man first.

Great West Has Overland Agency

CALGARY, ALTA, Sept. 20-The Great West Motors, Ltd., has taken over the Overland Agency for the province of Alberta and Eastern B. C. The Great West Motors, Ltd., has joined with the E. C. May Co. of Edmonton.



GARFORD

Adds a 1½ Ton Truck to Its Line

SPECIFICATIONS OF THE GARFORD 25

Price—\$1,890. (Chassis, solid tires)
Capacity—1¼ tons.
Engine—4 cylinders, 3% x 5% in.
Ignition—Magneto.
Clutch—multiple disc.
Springs—semi-elliptic.
Front Tires—36 x 3½ in.
Rear Tires—36 x 4 in.

A NEW model 25 has been added to the Garford line, this being rated at 1½ tons capacity. This newest addition runs the Garford line up to 7 truck models and 3 tractor models, the truck models being rated at 1, 1½, 1½, 2, 3½, 5 and 6 tons. The new model follows very closely the general design of the other Garford trucks of approximately the same capacity. However, in this newest model, the installation of an electric starting and lighting outfit is provided for and although this is not standard equipment, it can be put on the truck in a very short time.

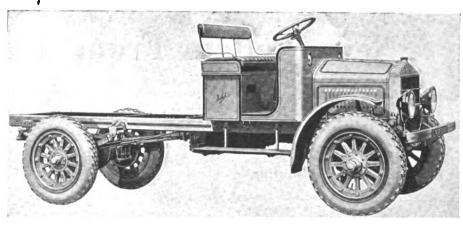
Model 25 will sell for \$1,890 in chassis, fitted with solid tires. Pneumatic tire equipment comes at \$285 extra, and electric starting and lighting is \$125

The engine has four cylinders cast in block, the bore being 3% in. and the stroke 5% in. The cylinder heads and valve chambers are integral and the valves are large and amply surrounded by water jackets. The S. A. E. rating of the engine is 22 hp. Ignition is furnished by high-tension magneto and carburetion from a 1 in. Stromberg carbureter.

When fitted with the electric starting and lighting system, the magneto is driven in tandem with the generator, so that there is no necessity for chains. The timing gears are three in number and operate in oil, and as they are helical in form and of very broad space, they are able to carry the load without noise or strain. The crankshaft bearings have bronze shells and are babbitt lined. The upper-end bearings are hard bronze.

A multiple disc clutch is used, it being mounted on ball bearings and enclosed in a housing attached to the flywheel, which in turn is integral with the crankcase. All shafts are mounted on roller bearings and the front driveshaft is tubular with fabric disc universals which requires no lubrication and will run quietly. The rear universal is a Spicer.

Braking is by means of two independent sets of brakes operating on the rear wheels, both of these being equal-

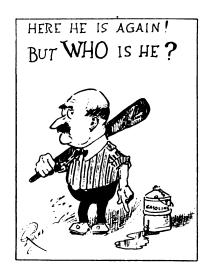


Garford model 25, 14 tons

ized. The brake shoes, levers and drums are unusually heavy.

The springs are semi-elliptic all around, the front set being 42 x 2½ in. with eight leaves and the rear being 50 x 2½ in. with eight leaves. The spring shackles are drop forgings, heat-treated. Lubrication of the shackle pins is by means of an oil feed.

The frame is of 7/32 in. stock, 5 in. deep and 2½ in. wide. It is pressed steel and has six cross members. The front and rear wheels are wood artillery type with S. A. E. felloe band. The standard



tire equipment is solid pressed on type, $36 \times 3\frac{1}{2}$ in. in front and 36×4 in. in the rear.

Double Willys Light Plant

TOLEDO, OHIO, Sept. 18—Offices of the new Willys Light division of the Electric Auto-Lite Corp., manufacturing a new farm light, are to be doubled. The building next to the present offices has been leased and will be remodeled as an addition. The structure is 40 by 100 ft. and three stories high.

Manternach in Buffalo

HARTFORD, CONN, Sept. 18—The Manternach Co., advertising agents, have opened a branch in Buffalo, N. Y., in charge of Walter A. Allen, the secretary of the company.

A "Different" Automobile Blue Book

A NEW and radically different Automobile Blue Book. Although there are many routes, maps and complete road data on points within 50 miles of New York, essentially it is a tourists' guide to the historic spots, hotels, restaurants, theaters and every other conceivable point of interest in the metropolis.

Nothing worth the pleasurable moment of the visitor has been neglected.

One of the particularly fine things about the volume is its delightful readability. The restaurant descriptions, with their easy intimacy, are such as to rouse the most flagging appetite. The thousands of places that hold interest of various kinds are described with much charm.

For any one proposing to visit New York the book is almost an indispensable adjunct, and the tourist will find that though the lights are not so bright and the tinkle of ice lacks its old significance, Gotham is yet his Mecca—particularly if he owns a Metropolitan Blue Book. The book is published by the Automobile Blue Book Publishing Co., 243 West 39th Street, New York.

Selling Direct to Trade

HARRISON, N. J., Sept. 20—The Driver-Harris Co. is now selling its wire rope products direct to the trade instead of through its former selling agents.

Iowa Establishes Theft Bureau

DES MOINES, Ia., Sept. 18—At a recent state meeting of Iowa county sheriffs the Iowa Auto Theft Bureau was established and headquarters will be opened in this city. A committee from the sheriffs' association has taken the matter up with Governor Harding, who offered to give the bureau the service of a state agent.

Plans for the bureau call for an officer to be in the central clearing house constantly. Each sheriff in the state will report thefts and recoveries. The bureau will also seek to enforce the law which makes it unlawful to buy second-hand cars without a certificate of registration, giving the full description of the car.

News Letters From Trade Centers

KANSAS CITY

Encourages Truck Hauling

KANSAS CITY, MO., Sept. 20 .- Motor truck distributers here were pleased with the Ship by Truck expedition to the Topeka Free Fair last week. Twenty trucks took part in the parade.

Prizes were offered for the most interesting demonstration of truck hauling over country roads. About 100 trucks were in the contest, bearing products ranging from hogs and wheat to water-melons. The contest was arranged and the prizes given co-operatively by the Firestone Ship by Truck Bureau and the Capper Publications.

The Howard Motor Car Co., while waiting for its new building, is doing business in a tent on Motor Row.

The Moon Distributing Co. has leased a building at 1916-18 Grand Avenue as a salesroom. It is now quartered with another company.

The Great Western Commercial Truck Co., Omaha, has leased a 2-story building in the West Bottoms, to be used as an assembling plant.

H. Serlis, president of the Serlis Motor Co., Briscoe distributer, has leased a building at 2421-23 McGee Street, for sales, service and distribution. The Briscoe heretofore has had quarters at 1600 Grand Avenue. That entire building will be occupied hereafter by the Jones-Tharp Motor Co.

The Chevrolet Motor Co. is moving its salesrooms to 1723 Oak Street, built by the company two years ago for its service department. A new sales building is now in course of construction at Sixteenth Street and Grand Avenue.

The Anderson-McFarland Motors Co. has been organized to distribute and handle at retail the Columbia, Crow-Elkhart and Maibohm cars. G. E. Anderson is president, W. O. Brown vice-president and R. G. McFarland vice-president in charge of retail sales. Mr. Brown will handle wholesale distribution. Mr. Anderson, who recently bought the interests of Mr. Ellington in the wholesale distribution of these cars, is general manager.

The Wilson Motor Co. has been organized for retail sales of the Reo, headed by A. B. Wilson, formerly of Oklahoma City. The company will occupy 1812 Walnut Street as sales and service station until the Vesper Motor Co., Reo distributer, completes its new building at 19th and McGee Streets.

A safety movement is being organized by the Kansas City Division of the National Safety Council. The division has employed L. S. Smith, former newspaper

man, recently field secretary of the Navy League, to act as director of the movement. A public safety committee has been formed. The effort will be largely educational, involving the co-operation of the school board. Legislation will be asked later.

PHILADELPHIA

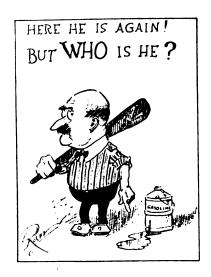
Automobile Report

PHILADELPHIA, Sept. 20-With a total revenue from Jan. 1 to July 1 of \$4,392,236, the automobile division of the State Highway Department operated at an overhead cost of one-tenth of one per cent, which showing is the lowest of any of the automobile divisions of the country.

The division spent \$184,999.81. Of this total, the cost of license plates was \$107,353.09. Delivery charges were \$33,-444.96. Salaries and expenses were \$44,201.75. The cost of license plates issued to pneumatic tired vehicles was \$92,760 and to solid-tired vehicles, \$9,-379; to motorcycles, \$2,249.93, and to dealers, \$2,303.64.

Automobile registrations from Jan. 1 to July 1 were: Motor vehicles, 407,-923; motorcycles, 21,107; tractors and trailers, 2778; dealers' licenses, 8690; paid drivers' licenses, 70,565; free drivers' licenses, 118,977; duplicates and transfers, 24,987; total of licenses issued, 655,027.

Notice that the State Highway Department has requested manufacturers of automobile light lenses to conform to certain specifications has been issued from the automobile division. Manufacturers have been asked to send in sample lenses for tests. The new automobile



regulation in Pennsylvania provides that no glaring lenses may be used and provides that manufacturers must send a check for \$50 to the automobile division of the department to cover expense involved in making tests.

The Davenport Motor Co. of Philadelphia has been appointed sole distributer in this territory for the Templar car. The company, which maintains a service station at 2012 Chancellor Street. has made arrangements to establish salesrooms and general offices at 723 North Broad Street, which will be ready for occupancy on Oct. 1. E. F. Davenport is president of the new organization, M. E. Jackson is general manager and Charles A. Marsch is sales and service manager. Mr. Jackson formerly was connected with the Locomobile and Packard companies. Mr. Marsch formerly was associated with the Packard Motor Car Co.

CHICAGO

Building at Standstill

CHICAGO, Sept. 20-Failure of arbitrators to reach an agreement in the building trades strike here this week is likely to cause serious inconvenience to motor car dealers throughout the Chicago territory. A large number of distributers have plans ready for the expansion of their present quarters to keep pace with the growth of their business. but they are being held in abeyance by the tie-up.

Nearly all the distributers in the Chicago territory are planning new sales or service stations and most of them had planned to have them in readiness for occupation in time for the spring business. Virtually no building has been done in the automobile district of the city

in the last three years.

Service stations in particular are needed. Many concerns, which a few years ago had only a few cars on the service work in limited space, now have hundreds or thousands of cars in operation and their service stations are wholly inadequate.

Ground has been broken for the new salesroom of the Triangle Motors Co., Stephens and Scripps-Booth distributers. and the Vesta Co. has started work tearing down the former home of the Chicago Motor Club, occupying the site of its proposed new sales and storage rooms. When this preliminary work is done, however, the companies will have to wait until the building strike is settled before they can proceed further.

NEW YORK

Dealers Have Play Day

NEW YORK, Sept. 23—National celebrities in the automobile industry, including manufacturers, distributers and racing men, were guests of the New York Automobile Dealers' Association at their ninth annual boosters' outing last week at "Wag's," the farm of Fred J. Wagner, a member of the organization, at Smithtown, L. I. More than 200 persons attended.

The outing was an all day affair, the attractions including breaktast and dinner (a clambake), a baseball game and ten or twelve athletic and "stunt" events. In the baseball game the team managed by William C. Poertner, National and Scripps-Booth dealer, defeated the aggregation of Frank Hill, New York manager of the Republic Tire Co., 13 to 11.

Ralph Mulford, the racer, won the gymkhana, an automobile race in a field of clover stubble, in which stops were made to light a cigar, drink a bottle of "soft stuff" and drive a spike with a tack hammer. Dario Resta won the sack race in something less than his unusual 100 m.p.h.

Franklin dealers of the metropolitan district were in convention here last week with S. E. Franklin, sales manager of the Franklin Motor Car Co., and Glenn A. Tisdale, New York distributer and dealer.

MILWAUKEE

Gratified by Fair Show

MILWAUKEE, WIS., Sept. 20—The unusual success of the fifth annual fall show conducted by the Milwaukee Automobile Dealers, Inc., in connection with the State Fair at Milwaukee, Sept. 8 to

13, seems to be just becoming apparent, although acknowledged from the opening day. The momentum which passenger car demand particularly gained from the show is virtually overwhelming distributers as well as dealers. The truck demonstration on Sept. 11 likewise has had a most beneficial effect in stimulating commercial vehicle demand. The tractor trade also reports a splendid advantage from this department of the fair.

Official figures show that the total attendance this year was 242,554, compared with 188,522 in 1918, heretofore the biggest year. The gate receipts of the fair proper were \$88,306.60, against \$64,201.25 in 1918. In 1914, when the Milwaukee dealers first took over the State Fair Car and Truck Show, the total attendance was 103,899.

Dealers at Fond du Lac, Wis., this year provided a building of their own at the Fond du Lac County Fair Grounds, held last week. This was done by building walls to the base of the new concrete grand stand, closing in a large area in permanent shape. Every dealer is allotted an equal amount of space and the decorations are uniform throughout. The exhibitors were:

Fond du Lac Auto Co., Buick; Anderson Vehicle Co., Auburn; Johnson Motor Co., Oakland; Nash Garage Co., Nash and Case; E. Eugene Raymer Co., Haynes and Grant; Wisconsin Auto Sales Co., Chevrolet and Olds; Service Motor Co., Ford; M. M. Molitor & Co., Elcar and Crow-Elkhart; Voell Auto Sales Co., Hudson. Essex and Dodge; Clark Motor Co., Maxwell, Chalmers and Hupmobile; Engels & Romaine, Mitchell and Reo: Crescent Motor Co., Studebaker.

The E. M. Sullivan Motor Car Co., 495 Broadway, Milwaukee, organized recently to act as distributer and local dealer in the Diamond T truck, has incorporated the business under the same name, with a capital stock of \$25,000. Edward M. Sullivan, Matthew H. Carpenter and John H. Ryan are the principal officers and owners.

Charles Blodgett, formerly engaged in business at Kenosha and Delavan Lake, Wis., has purchased the Welch Reo Garage at Delavan, Wis.

The Mader-Christensen Service Garage Co., Shawano, Wis., a new concern formed by Russell Mader and Henry Christensen, has purchased the former Schweers garage and reopened it Sept. 15. The company expects to contract for one or more lines of passenger and commercial cars as dealers.

Money & Rossey, proprietors of the Motor Inn, Clintonville, Wis., have dissolved partnership. Mr. Rossey will continue the business alone.

The Luff's Tire & Supply Co., Milwaukee, has been incorporated with a capital stock of \$10,000 by Jacob Luff, Max Oxman and Bernard Luff, taking over the tire store and vulcanizing shop at 1502 North Avenue, conducted for several years by Jacob Luff.

Irwin T. Eakes, Mauston, Wis., who recently acquired the interest of Karl L. Sharp in the Sharp-Eakins Motor Co., has been appointed Ford dealer. The name of the firm will remain unchanged for the present.

The Service Garage, Fort Atkinson, Wis., has been purchased by Dan Kulby of Monticello, Wis., who took possession Sept. 15. Fred Bemis, former proprietor, retires.

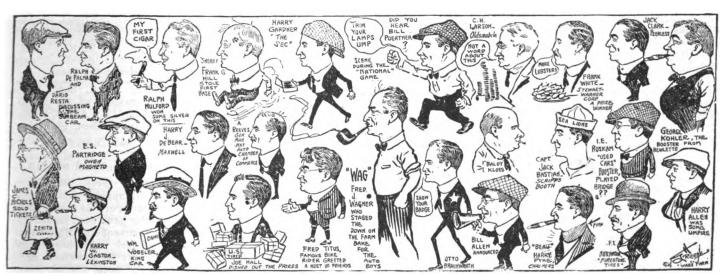
The Raab-Thieman Co., Sheboygan, Wis., Ford dealer, has changed its corporate style to R. H. Thieman Co. Arthur F. Raab has retired to become Buick dealer, and the business will be continued by Robert H. Thieman.

The Quality Tire & Rubber Co., 468 Jefferson Street, Milwaukee, has been appointed distributer of Globe tires.

The Hanover Auto & Machine Repair Co., Milwaukee, is the name of a new corporation organized by Frank Moser, Bert Nichols and Al W. Borsberg.

The Wisconsin Auto Tire & Supply Co., 552-554 Twelfth Street, Milwaukee, has dissolved partnership. A. Loubtzky and S. Litow have retired and will operate as the Modern Auto Tire & Supply Co. at the same location.

The Seven-Eight-Nine Taxicab Co., Racine, Wis., has been incorporated with a capital stock of \$5,000 by Bert E. Dunn, Walter S. Dresbach and Oscar H. Reichert. Bert E. Dunn conducts a large garage in Racine and is doubling the capacity.



The New York dealers' outing as seen by the New York Evening Telegram artist

G. CHEVROLET WINS AT SHEEPSHEAD BAY

Frontenac Driver Scores Victory Over Brother—Boyer and Vail Follow Leader

NEW YORK, Sept. 20—Gaston Chevrolet took the laurels at to-day's 150-mile race at the Sheepshead Bay Speedway when he drove his Frontenac to first place and a new record of 1 hr., 22 min., 34 1/5 sec., clipping nearly four minutes off the old time of 1 hr., 26 min., 14.9 sec. made by Ralph Mulford at Chicago in a Hudson, in June, 1917. Chevrolet led the field by two laps, with Joe Boyer in a Frontenac and Ira Vail in a Philbrin Duesenberg following in second and third places.

The winner's brother, Louis Chevrolet, pushing his Frontenac to its limit and battling with Gaston for the lead, went out of the race at the end of the 110th mile when his car caught fire and was driven into the pits a mass of flame. From almost the first lap the two Chevrolets had raced side by side, first one and then the other leading as they flashed by the judges, well ahead of the field. Gaston was setting the pace as they drove into the home turn on the fifty-fifth lap. Then Louis' car took fire and raced to the pits with driver and mechanician, Ralph Goodson, fighting the flames that threatened to envelop them. Both were severely burned about the arms and legs and, of course, were out of the going.

The day was one of thrills for the spectators. In the last lap of the third heat of the special ten-mile event, Ralph Mulford, with James Lee, mechanician, was leading on the last turn when a tie rod snapped on the steering apparatus of the Duesenberg and the car plunged down the curve, into the soft ground beside the track. Then it turned, in a cloud of dust, and plunged back across the course, narrowly missing another car, and crashed into the steel guard rails. Neither was injured, although Lee walked limping into the pits.

This special event was won by Louis Chevrolet, who took two of the three laps, with Gaston Chevrolet as second and Joe Boyer and Mulford tied for third. The best time of the three laps was 5 min. 24 1/5 sec., made by Mulford.

Ralph De Palma's hard luck followed him throughout the day. His Packard Special, with a broken connecting rod, went out in the first lap of the ten-mile event. Then he changed to a White Special for the last lap of this event and the longer grind. But three trips to the pits for tire changes kept him so far down that he did not finish the latter race.

Thirteen starters lined up for the longer race, but only eight finished. The five who did not complete the distance were Bennett Hill, in an Aetna; Joe Thomas, in a Mercer; Dave Lewis, in a Meteor; L. Chevrolet and De Palma.

The New Overland

The new Overland Four, the car whose forthcoming production has been a subject of wide discussion, will be on the market shortly. The story of its design and construction, in words and pictures, will be told in next week's Motor World.

EXCISE CAR TAX FIVE YEARS MORE

ST. LOUIS, MO., Sept. 18—The excise tax on automobiles probably will not be repealed for five years, according to the opinions at Washington gathered by Harry G. Moock, business manager of the National Automobile Dealers' Association, on his recent visit there.

"While I was unable to see Chairman Fordney of the House Ways and Means Committee," Moock declared, "those in close touch with him declared it their belief that, because of the enormous expenditures of the government, estimated by Treasurer Glass at about six billion dollars a year, it probably would be five years before action could be taken to repeal the tax."

Case and Wallis Consolidate

RACINE, WIS., Sept. 20—The J. I. Case Plow Works and the Wallis Tractor Co. have consolidated under the name of the J. I. Case Plow Works Co., with a capitalization of \$10,000,000. With the additional capital factory space will be enlarged and production increased.

be enlarged and production increased.

H. M. Wallis will head the concern, with H. M. Wallis, Jr., as his assistant. Other officers are: Vice-president, L. N. Burns; treasurer, W. M. LaVenture; secretary, M. E. Erskino; auditor, G. A. Filer; cashier, G. H. Bolton, and assistant secretary, Charles E. Pain, Jr. The officers, and C. F. Glore, Henry R. Platt and William A. Tilden and W. C. Quarles complete the board of directors.

THE RESULTS AT SHEEPSHEAD BAY

Position	Car	Driver	Time
1	Frontenac	G. Chevrolet	1:22:34 1/5
2	Frontenac	Joe Bover	1:24:43 3/5
3	Philbrin	Ira Vail	1:24:46
4	Peugeot	Art Klein	1:25:24
5	Hudson	Toland Nicholson	1:30:28 1/5
6	Stickel	Denney M. Hickey	1:31:35 1/5
7	Frontenac	Ralph Mulford	1:33:06
8	Duesenberg	William Vetere	Flagged

TRADE BODIES FORM A JOINT COMMITTEE

Co-operation Expected as Result of Action of Five Automotive Associations

NEW YORK, Sept. 20—A co-operative committee representing five of the largest automotive organizations, to further the solutions of common problems, has been formed here as a result of a meeting just held at the headquarters here of the National Automobile Chamber of Commerce. The committee, through periodical meetings, will serve to co-ordinate the efforts of the various organizations and will act as a general clearance body for the consideration of matters of general interest to the trade.

The organizations joining in the movement, in addition to the Chamber of Commerce, are the National Automobile Dealers' Association, the Motor and Accessory Manufacturers' Association, the American Automobile Association, and the Trailer Manufacturers' Association Officers of each participated in the opening conference and each of the organizations will appoint two representatives to sit with the joint committee.

As its first business, the committee will attempt to push legislation now before Congress concerning motor car thefts and the construction of good roads. The confiscation of cars confiscated for carrying liquor, a subject before Congress through the Volstead bill, also will receive the committee's attention.

The committee will initiate campaigns to be conducted by each association independently through its members and others in the same field, enlisting the cooperation of the trade and the daily press. This was started as one of the aims of the new body.

Treasurer's Wife Dies

SOUTH BEND, IND., Sept. 20—Mrs. Joseph D. Oliver, Jr., wife of the treasurer of the Oliver Chilled Plow Works, died last week in Philadelphia as the result of injuries received when she was thrown from her horse last December.

Death of Goodyear President

EAST ORANGE, N. J., Sept. 20— F. M. Shepard, president of the Goodyear Tire & Rubber Co., Akron, Ohio, died at his home here on Sept. 18, at the age of 61.

Ontario Registration Ahead of 1918

TORONTO, ONT., Sept. 20—From Jan. 1 to August 31 approximately 120,000 passenger car permits and 9500 motor truck permits have been issued by the Ontario Department of Highways. For the whole of last year there were issued 101,599 permits for passenger cars and 7529 permits for motor trucks.



PLAN AWARD OF 1920 RACE CHAMPIONSHIP

Contest Official Proposes Change in Rules—No Prizes Except Through Board

NEW YORK, Sept. 20—A championship award for race drivers in 1920, based upon car performances at a number of speedway and road events, has been proposed by the Contest Board of the American Automobile Association, the governing body in racing matters, and, with other changes, will be brought before the board for action at its next meeting. The most important additional change will be the proposal to prevent the awarding of prizes at sanctioned races other than through the board.

Announcement of these plans were made here to-day by Richard Kennerdell, chairman of the contest board, who will recommend their adoption. Several members have given informal sanction to the changes and Kennerdell predicted that they would govern the various events next year.

The championship award will be similar to that in 1916, when Dario Resta, by obtaining a total of 4100 points in five races, was declared the year's victor. For this, he was awarded a cup and \$7,500 prize money. The war caused the award to be dropped in 1917 and 1918.

Under the plan, certain races are designated as championship events and each driver receives points for his performance there. These are totaled at the end of the season and the driver with the highest total is awarded the championship, which entails a large financial award. Such an award makes for better racing, Kennerdell believes, as it affords greater interest and makes for wider participation in the numerous events. A large purse, it was stated, probably could be arranged so that from \$20,000 to \$40,000 might be divided among the winning drivers.

The other change was said to be an attempt to prevent the award of additional prizes by accessory makers. This was allowed during the season just ended and has caused some confusion, Kennerdell said. He hopes next year that all such prize awards will be handled through the board, thus eliminating confusion and possible charges of unfairness.

MAKERS HOLD FATE OF GLIDDEN TOUR

NEW YORK, Sept. 20—Plans for the resumption of the Glidden tour for 1920 soon will be considered by a committee of the American Automobile Association which has been authorized to act upon the offer of Charles J. Glidden, donor of the trophy, to put it up for final disposition next year. The committee is composed of Richard Kennerdell, chairman of the Contest Board of the A. A. A., and Alfred Reeves, general manager, and S. A. Miles, chairman of the show com-

mittee of the National Automobile Chamber of Commerce.

Kennerdell announced to-day that decision concerning the race was dependent upon the attitude of manufacturers. If they are willing to enter cars in the proposed tour, which will be similar to those previously held, the road grind would be resumed. It would not be held again, he declared, unless the makers would support it.

The offer made by Glidden was that the cup would become the permanent property of the winner of next year's race. It has been in Glidden's possession for several years. The committee will consider the proposal early in October.

MISSOURI LICENSES SWELL ROAD FUND

ST. LOUIS, Sept. 18—Licenses have been issued to the owners of 225,954 motor cars in Missouri from Feb. 1 to Sept. 1, an increase of 37,914 for the same period in 1918, according to the report of the automobile department of the Secretary of State at Jefferson City. Of this number, 42,585 licenses were issued by the St. Louis office, and 32,550 by the Kansas City office of the department.

The Good Roads fund in the State Treasury has a credit of \$1,649,644.10 from receipts of the automobile department.

Nash Building in Milwaukee

MILWAUKEE, Sept. 20—The Nash Motors Co. during the week let the contract for erecting the first unit of its new works here at Clement and Oklahoma Avenues. The building will be 200 x 600 ft., with sawtooth roof, and requires 450 tons of structural steel and 45,000 to 50,000 sq. ft. of steel sash. Construction work begins this week.

Within thirty days, contracts will be let for a power and heating plant and an additional shop unit. Within a year's time it is hoped to invest \$3,500,000 in buildings and equipment and provide a working force of 4000 men.

Leach-Biltwell Incorporated

LOS ANGELES, CAL., Sept. 20—The Leach-Biltwell Motor Co. has been incorporated for \$1,000,000, absorbing the Leach-Biltwell Co. The concern will manufacture a six-cylinder passenger car called the Leach Power Plus Six. M. A. Leach is president, and other officers are: L. G. Martin, vice-president; E. P. Hughes, secretary and treasurer; R. A. Wilson, production manager; R. P. Pennock, superintendent; J. H. Faircloth, purchasing agent; C. N. Graves, eastern factory representative.

Leach established Pacific Coast distributing connections for the Dort Motor Car Co. Later he formed the Leach Motor Car Co., operating as distributer in Los Angeles and San Francisco. For the past year he has been turning out custom made cars. The company will buy its units in the East and assemble them in the plant here. Plans for a new factory will be announced soon.

DECLARE ARMY OWNS OVER 100,000 CARS

Congressmen, In Lengthy Debate, State That Surplus Vehicles Number 47,000

WASHINGTON, Sept. 19—Four hundred and seventy requests were sent by General C. B. Drake, Chief of the Motor Transport Corps, to the Sales Department asking for the sale of surplus motor trucks and passenger cars held by the Army and all of these were disregarded, according to statements by Congressman Reavis in the House yesterday.

As the result of an appropriation measure which was debated by the House for the repair and maintenance of certain cars and trucks, the Congressmen entered into a prolonged discussion, during which it was claimed that there are "more than 100,000 army vehicles in the United States and that there are 47,000 surplus automobiles in the army over the requirements of the departments."

As a result, a resolution was offered which would direct the Secretary of War to sell immediately the surplus vehicles. It was pointed out by Congressman Wingo that the War Department has been in an uncertain position because three distinct acts have been passed by Congress in the last year, making different provisions for the disposition of army vehicles.

Declarations of members showed that for an army of 509,000 men, which the War Department proposes to maintain in peace times, 47,840 vehicles of various types, ranging from bicycles to 5-ton trucks, will be necessary. Additional information showed that 39,723 vehicles have been found surplus and, of these, 4701 have been turned over to the Post Office, 760 to the Public Health Department, 12,032 to the Department of Agriculture and 682 to other departments. Included among those held as surplus, are 5382 unserviceable vehicles awaiting sale at auction. Additional vehicles have been demanded by the various Government departments but the transfer has been held up.

Melhuish in Automotive Securities

NEW YORK, Sept. 20—W. F. Melhuish, Jr., who resigned some time ago as president of the Fulton Motor Truck Co., Farmingdale, N. Y., has also resigned as chairman of the board of directors, thus severing all connections with the company.

A new organization, to be known as Melhuish & Co., to specialize in marketing automotive securities, has been formed by William F. Melhuish, Sr., William F. Melhuish, Jr., and Walter G. Herr. It will occupy offices at 40 Wall Street. Walter G. Herr was formerly associated with a member of the Pittsburgh stock exchange.



INTEREST KEEN AT LOS ANGELES SHOW

Tractor Demonstration Is High in Sales Value—Exhibit Power Machines

LOS ANGELES, Sept. 19 (Special Telegram)—The fourth annual tractor demonstration held by the Southern California Implement Dealers' Association here this week, judged by attendance, interest, quality of exhibits and sales, unquestionably was a valuable exhibition. It was a distributers demonstration, however, and was not staged by manufacturers.

The demonstration was conducted without real rules. Practically the only stipulation was that plowing should be at least six inches deep, and some of the machines had difficulty in meeting this condition. There was no competition of any kind.

The demonstration was not conducted to interest dealers except as a secondary consideration. Its aim was to stimulate sales directly to the users. The largest single day's attendance has been 20,000 and it was not considered probable that this figure would be exceeded, although the demonstration will continue over next Sunday. The attendance was not as large as in previous years but those participating say that there was more genuine interest displayed than ever before, and that a greater number of sales would result.

All efforts have been directed toward getting out the ranchers themselves. Sales have been made to actual users who have come from points in Nevada, Arizona and San Joaquin Valley. Representatives of four foreign governments have been almost daily visitors.

Twenty-Nine Makes Shown

Twenty-nine makes of tractors were shown, each being demonstrated with from two to six models. Apparently it was just as much a farm implement show as it was a tractor demonstration. This undoubtedly was due to the fact that, with only two or three exceptions, all tractors represented in Southern California are controlled by farm implement dealers. In addition to tractors, there were shown devices of all sorts that may be considered as saving in farm labor. There was a liberal display of automotive accessories and a few motor trucks and light delivery cars. The showing, however, did not prove much of an investment for the truck exhibitors as their displays received only scant attention. A well directed drive to show the value of trucks on the farm might have accomplished something worth while with such a large gathering of land owners.

It should be said to the credit of the demonstration that more attention than ever was paid to showing the adaptability of tractors for stationary use.

Tractors were kept running the entire day pumping water.

In Southern California, ranches must be irrigated. You cannot plow when water is being run through the fields, therefore, you could not use the tractor for plowing at that time but you can use it for lifting the water. It saves the expense of stationary engines for pumping water, and these engines do not operate when plowing is being done tractor is free for that work when needed. In this respect the tractor scored a real hit with ranchers.

Plowing Was Difficult

Similar reasons might be applied to ensilage cutting, operating wood saws, digging post holes, pulling stumps, dragging out underbrush or breaking new land. Let it also be said that the attention shown to tractor usage other than for plowing was not only educational but was of actual value as well. The plowing job was a difficult enough one in itself, however. The soil was oil gumbo and almost as hard as cement. Occasionally the plows would bite off more than they could handle. Plowing by tractor under these conditions cannot be regarded as a one man job, yet this was the same soil that is encountered in sixty per cent of the acreage upon which tractors will be used in this locality.

SUE NASH COMPANY FOR 2½ MILLIONS

BALTIMORE, MD., Sept. 18—The Nash Motors Co., a Maryland corporation, was made defendant in a suit for alleged damages of \$2,439,650, filed in the Baltimore City Court to-day. Frank Joseph Goldsoll, said to be a former private in the French Army and who was under arrest for a time at Washington last March, upon a warrant sworn out by Chancellor Bergeron, of the French Embassy, charging him with larceny of between \$3,500,000 and \$6,000,000 from the French Government, is the plantiff. The sum named in the suit is alleged to be due the plaintiff on a contract for the sale of motor vehicles and parts, on commission.

The declaration states that a contract was made with the Thomas B. Jeffrey Company, a Wisconsin corporation on Aug. 3, 1915, and Oct. 12, 1915. The petition says the Nash Co. succeeded the Jeffrey firm, and assumed all of its obligations. Goldsoll claims he was to be paid 27 65/100 per cent on all motor cars, trucks and other products of the Jeffrey company, sold by him to France, Serbia and Belgium.

The papers state that the Nash company sold to the United States for use in France and Belgium 3000 motor truck chassis for \$2,760 each or \$8,100,000, and spare parts valued at \$723,363, and that the money has been received by the company. Goldsoll claims his commission of the sale amounts to \$2,439,650 or 27 65/100 per cent of the amount of the sale.

RULES THAT MAKERS MAY FIX SALE PRICE

Federal Court Holds Schrader Company Not in Violation of Trust Laws

CLEVELAND, Sept. 19 (Special Telegram)—The A. Schrader's Son, Inc., of New York, manufacturers of valves, valve parts, pneumatic pressure gauges and other accessories, won a victory, in the United States Court of this city, that may mean much to manufacturers in this country.

Federal Judge D. C. Westenhaver, of the Federal District Court, Eastern Division, to-day filed with the clerk of courts his decision in the case which the Gevernment, through District Attorney E. S. Wortz, has filed against the company. Judge Westenhaver ruled, in substance, that manufacturers legally may fix the price at which dealers must sell their products.

The Schrader company was indicted on a charge of violating the Sherman Anti-Trust Law, the express charge being that the company, in violation of the Anti-Trust provision dictated to dealers the prices at which they might resell Schrader products.

The Court, in giving decision, said in part: "I interpret it (the indictment) as charging that the defendant has made contracts with all tire manufacturers and jobbers to whom it sells its products to execute uniform contracts and that these contracts contain provisions requiring that they shall not sell to jobbers, vehicle manufacturers, retail dealers and the consuming public except at certain prices fixed by the defendant.

"The Sherman Anti-Trust law, as I construe it, in the absence of the other and additional allegations charging an intent and purpose to monopolize trade, does not make the acts thus charged a crime, and this conclusion is the same, despite the fact that defendant contends this product is covered by patents which permit it to control the resale prices in the manner set forth in the agreements exhibited with the indictment."

"The point which I wish to emphasize is that the allegations of this indictment, not alleging any purpose to monopolize interstate trade, within the prohibition and meaning of section two of the Sherman Anti-Trust Act and the last clause of sections two of the Clayton Act, does not charge a crime under section one of the Sherman Anti-Trust Act as that act should be construed."

Dodge Expansion Probable

MOUNT CLEMENS, MICH., Sept. 22
—Probable expansion of the Dodge Bros.
automobile factories in this city is intimated by the purchase of several farms
bordering Selfridge field. No definite
announcement has been made by the
corporation.



New York Dealers' Outing a Day of Real Play



1—Harry T. Gardner (secretary), William A. Allen (director). Frank Hill and William C. Poertner kept the sports going.

2—The ball players excelled in the 50-yd. dash. 3—Mrs. Fred J. Wagner and "Wag," the hosts. 4—Richard Kennerdell,

4. A. A. Contest Board chairman, James Levy and Representative Clifford Ireland of Chicago. 5—E. 8. Partridge,

R. M. Owen, Carl Paige. 6.—All the sports were not of the outdoor variety. 7 and 8—Poertner's Sea Lions. left. who defeated Hill's Deputy Sheriffs 18 to 11 on the diamond

BALTIMORE HOLDS INFORMAL SHOW

Dealers Hold Individual Exhibit In Tents or In Open—Over 100,000 Attend

BALTIMORE, MD., Sept. 20—More than six acres was devoted to the tractor, motor truck, farm lighting, accessory and automobile exhibit at the Baltimore County Fair, at Timonium, about twelve miles from the city. More than 100,000 persons attended during the week.

The motor vehicle display was not housed in a single building or under one large tent. Many of the dealers had their own tents. Quite a few merely showed their tractors and trucks in the open, with the farm lighting plants rigged up on trucks.

The Central Automobile Co. had the largest display, a Curtiss plane being the center of attraction. A Stearns sedan, an Acason dump truck, several Auburn models, and a few repainted and rebuilt used cars were in the tent. Charles Boylan, who was in the Naval Air Service, and who returned to the Central company's sales staff after his discharge, is in charge of airplane sales and will also make demonstrations.

The Auto Outing Co. also used a tent displaying the Watson tractor and trailer and Selden trucks, at the same time looking after Buick business.

The Chevrolet display was run by several dealers and a tent held two models of the 490, a Baby Grand and a 1-ton truck.

Walter P. Reckord, Towson, Md., showed an International tractor in operation, as well as Dodge and Ford models. The Trenham tractor was displayed by the factory organization.

George F. Derr was in charge of the Standard Motor Co.'s display of the Cleveland tractor. The company also distributes the Cadillac in Maryland and various other states.

A Moline tractor was kept in operation during the day by C. N. Robinson & Bro., Baltimore distributers. Among the other exhibitors were: The Mid-City Garage, United States trucks; Packard Motor Car Co., Baltimore, trucks and cars; Maccar Motors Co., Maccar trucks and Westcott cars; Seitz Auto Co., Velie cars and Service trucks; Brooks Motor Co., Bell cars; National Garage, Sparks, Md., Dixie Flyer; Acme Motor Sales Co., Acme trucks; Herman Born & Sons, Inc., truck bodies and Firestone truck tires; Campbell-Niedringhaus Co., Lee tires; Ridgely Sheppard Motor Truck Co., Signal trucks and Hudford attachments and the Adapto tractor; W. P. Beall, Stevenson, Md., Beall's Autopower transmitter, an attachment for Fords; Malcolm W. Hill, McGill's Autopower attachment. The Genco light and the Delco farm lighting systems were also shown.

WINTHER WILL BUILD MILWAUKEE PLANT

MILWAUKEE, WIS., Sept. 22—Following closely upon the announcement by the Nash Motors Co., Kenosha, Wis., of the establishment of a factory in Milwaukee, the Winther Motor Truck Co., Kenosha, has made public the fact that it has signed an option for a site here upon which it expects to erect a new plant costing \$250,000. The present large factory in Kenosha will be continued in full operation and general offices will remain in Kenosha.

The Winther company is marketing an issue of \$500,000 of 7 per cent preferred stock to finance the new branch factory. Its authorized capital is \$2,100,000, of which only a little more than \$1,000,000 has been outstanding.

7500 Production Schedule for Maibohm

SANDUSKY, OHIO, Sept. 18—The Maibohm Motors Company proposes to build 7500 cars in 1920. This is on a daily production schedule of 25 cars, which is well within the capacity of the new factory. The new plant, 620 ft. long and which includes the Maibohm body plant, is now practically completed.

Universal Puts Out New Lighting Plant

SANDUSKY, OHIO, Sept. 20—A new lighting plant has been brought out by the Universal Products Co. which is smaller than any previously made by the company. It is designed especially for the needs of the small farmers.

LOUIS CHEVROLET WILL DESIGN FOR MONROE

INDIANAPOLIS, IND., Sept. 20— Louis Chevrolet, race driver and engineer, has become associated with the William Small Co. as consulting engineer. He will work out designing problems for the Monroe car, now being built by the William Small Co.

Chevrolet has been commissioned to build a fleet of racing Monroes to campaign in all the big events of the 1920 season, including the Indianapolis 500-mile race. The cars will meet the conditions of the Indianapolis race, 183 cu. in. piston displacement and a minimum weight of 1700 lb.

Chevrolet has been with the American Motors Co. of Plainfield, N. J., and with the Frontenac Motor Co. of Detroit.

DEMOUNTABLE RIMS AND STARTERS FOR FORDS

DETROIT, Sept. 22—The Ford Motor Co. is now equipping its sedans and coupes with starters and demountable rims as part of the standard equipment and has raised the price of these two models \$100 to cover the cost of the two additional units. The Ford sedan is now selling at \$875 and the coupe at \$750.

On the touring car and the roadster the starter and demountable rims are optional. Without the extra equipment the prices of the latter two lines remain the same, \$525 for the touring and \$500 for the roadster. A few of the touring cars equipped with the starter and are selling at \$600. For the starter \$75 additional is charged, while if demountable rims are added, \$25 more is asked.

Educational Campaign For Roads

TORONTO, ONT., Sept. 20—The directors of the Canadian Good Roads Association at their meeting here discussed plans for an educational campaign, designed to stimulate interest in the movement, and more particularly to insure that full adventage is taken of the Federal road grant of \$20,000,000. Details of the plan will be announced at a meeting of the directors to be held in Ottawa on Sept. 25.



After the bake was eaten. New York dealers ready

TRUCK TOURS ARE GAINING POPULARITY

N. A. C. C. Gets Reports of Several Events—Others Scheduled—Sales Builders

NEW YORK, Sept. 22—The growing popularity of truck tours and truck parades, as sales builders, was evidenced here to-day by reports of coming events made to the rural express division of the National Automobile Chamber of Commerce. Among these are tours starting at Buffalo, N. Y., and Des Moines, Iowa, and parades at Baltimore and Brooklyn.

The Baltimore parade was held last Saturday and consisted of several hundred trucks, the demonstration being under the direction of John C. O'Brien, general manager of the Baltimore Automobile Dealers' Association. The Brooklyn parade was announced for Oct. 13, to consist of a demonstration of as many vehicles as could be obtained through the business streets.

The tour from Buffalo was scheduled to start to-day and will continue all of this week. An itinerary of about 500 miles has been arranged, through that part of New York State of which Buffalo is the center. The Des Moines tour will start Oct. 13 and also will continue for a week, with a schedule calling for about 75 miles travel each day.

The bureau has just completed a review of its work at the recent New York State Fair at Syracuse. The "ship by truck" exhibit staged by the bureau in the State Institute Building, held in connection with those of several state departments and was ..ot designed to increase truck sales but merely to further the plan of rural truck express work. distributed more than 6000 pieces of literature from the booth, while 1097 persons asked that they be mailed more comprehensive data on such transportation.

OSTERLOH TO MANAGE CALIFORNIA GOODYEAR

AKRON, OHIO, Sept. 22-The Goodyear Tire & Rubber Co. has appointed A. F. Osterloh, secretary of the company, vice-president and general manager of the Goodyear Tire & Rubber Co. of California.

The California company has a capitalization of \$20,000,000, will employ 7000 workers at the start and will have a capacity of 7500 tires per day. Its cotton mills will be operated by a subsidiary company, the Pacific Cotton Mills Co., with 32,000 spindles and a capacity of 75,000 lb. of cord fabric and 75,000 lb. of woven fabric each week, with 1200 employees.

CANADIAN COMPANY MAKES NEW TRUCKS

HAMILTON, ONT., Sept. 20—The Beaver Truck Builders, Ltd., is a new concern organized here. The organization of the company has now been completed and production has been started in a well equipped plant on Adam Street. Plans are already in hand for additions to this plant.

This is an exclusively Canadian company. The president is W. J. Lord. H. R. Williams is vice-president and managing director. He was formerly chief engineer of the Smith Motor Corp., Chicago, and served with the Allied Truck Commission at Washington.

The Beaver truck, it is stated, will be 80 per cent a Canadian product, practically everything entering into the truck being made in its own plant. At the present time the company is confining its attention to a 2-ton truck. In designing the Beaver truck, Mr. Williams has incorporated the leading features of the special military type of truck, as standardized by the Allied Truck Commission. The rear axle is of worm drive, with forced feed oiling system to the worm, allowing unusual road clearance

Magneto Makers Issue Booklet

NEW YORK, Sept. 18—The Magneto Manufacturers, an association composed of five of the leading magneto manufacturers in this country, has issued a 22-page booklet on magneto ignition. There are a number of illustrations of various kinds of vehicles of the land, water and air, that have broken records at one time or another.

SENATE CONSIDERS CAR THIEVERY BILL

WASHINGTON, Sept. 19-The Dyer motor theft law, making it a felony to take stolen motor cars from one state to another, was adopted by the House yesterday by a vote of 200 to 40 and was sent to the Senate, where its passage was expected within two weeks. The House action came after conferences between Representative Dyer of Missouri, who introduced the bill, and Harry G. Moock and C. A. Vane, general manager and assistant general manager of the National Automobile Dealers' Association. Changes were made in the bill then, making the punishment for violation a maximum fine of \$5,000 and imprisonment of not more than five years instead of ten years, as it was at first. This was changed because of opposition that had arisen among some Congressmen. The bill was passed under a special rule. Dyer will appear soon before the Judiciary committee in an effort to hasten its adoption by the upper house.

Light Dealer Sells Town System

HIXTON, WIS., Sept. 22—Hixton, an unincorporated village in Jackson county, near Black River Falls, Wis., will soon be lighted by a Delco system, local business men having subscribed a fund to purchase a 3-k.w., two-unit outfit with a capacity of 500 lamps, including fifteen street lights, from Hagen & Larson, Delco dealers at Northfield, Wis. Additional units will be added as the demand increases. It is planned as a municipal light and power plant, as the community expects soon to-incorporate and take over the quasi-public plant.

Mason Denies \$10,000 Race Award

NEW YORK, Sept. 19—Credited reports of the award of \$10,000 in prize money to Dave Lewis at the Uniontown, Pa., races on Sept. 1, by the Mason Tire & Rubber Co., were denied here to-day by officials of the rubber company. The announcement stated that no award had been made. Lewis finished fifth, driving a Meteor. The award had been offered provided a car equipped with tires of their manufacture finished in one of the first three places.



to start for home from the Long Island outing

COLORADO PREPARES FOR OCTOBER EVENTS

Directors of N. A. D. A. and Rocky Mountain Trades Association Plan Meetings Soon

DENVER, Sept. 16—Two events of importance to the motor car industry will be held in Colorado the first week in October. The directors of the National Automobile Dealers Association will meet at Denver the first four days of the month, and the Rocky Mountain Automobile Trades Association will hold its third annual convention Oct. 6-8 at Colorado Springs.

Each gathering, in addition to the business sessions, will have an extensive entertainment program of mountain motor trips, mountain climbing, dances, dinners, luncheons, fishing, golfing and other forms of recreation. The convention delegates will be entertained by the Colorado Springs Automobile Trades Association, while the Denver and Rocky Mountain trades bodies will provide pleasure features for the national directors, including a motor trip through the Denver Mountain Parks and a trout dinner at the Denver Motor Club's country home in Bear Creek Canyon. One convention feature will be a motor trip to the top of Pike's Peak and two days of business sessions and recreation in "stes Parl and the Rocky Mountain National Park are on the program for the directors' meeting. This will mean a circle trip of nearly 200 miles from Denver.

Prominent in arranging entertainment features for the directors of the national trades body is General Manager P. E. Chamberlain of the Cadillac Motor Co. of Denver, who represents the Rocky Mountain territory as regional director. The visitors will be Chamberlain's guests at a luncheon in the Denver Country Club. There will be other luncheons at the Denver Athletic Club, the Brown Palace Hotel (official headquarters) and also at the Stead and Stanley hotels in Estes Park.

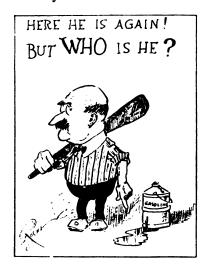
Among the speakers promised for the convention program at Colorado Springs are Edward S. Jordan, president of the Jordan Motor Car Co.; F. W. A. Vesper and Harry G. Moock, president and secretary of the N. A. D. A., and Mark Skinner, United States internal revenue collector at Denver.

Shafer Bearing Company Chartered

CHICAGO, Sept. 20—The Shafer Bearing Corp., a new corporation capitalized for \$1,000,000, has been organized to manufacture roller bearings for passenger cars, trucks and tractors. Although an outgrowth of the Geo. D. Bailey Co, makers of ball thrust bearings, the new organization will not alter the activities of the Bailey company, which will continue as the replacement division of the Shafer corporation, and will manufacture as well.

Julius E. Shafer, formerly secretary of the Makutchen Bearing Co., was elected president, and George D. Bailey, of the Geo. D. Bailey Co., was made vice-president. C. F. Ferguson, vice-president and general manager of the Geo. D. Bailey Co., is secretary and treasurer. Otto Cullman, president of the Cullman Wheel & Gear Co., Chicago, is chairman of the board of directors. He, the officers, and A. A. Worsley, Louis A. Hippach and Charles F. W. Nichols, form the board of directors.

The main office of the company will be in this city, and branches are being opened in New York, Minneapolis and Kansas City.



New Wholesale Firm

NEW YORK, Sept. 22—M. H. and J. W. Kleinfeld, for several years associated with the Lowe Motor Supply Co. here, have organized the Pyramid Motor Equipment Co., Inc., and will do a whole sale business in automobile supplies, tools and garage equipment. They will be located at 116-118 West Sixty-fifth Street, in the heart of the automobile section.

Saxon Finances Near Solution

DETROIT, Sept. 19—The Saxon Motor Car Corp. has retired 30 per cent of its outstanding indebtedness with the cash received from the General Motors Corp. through the sale of its new manufacturing plant that was built just prior to the war.

This new plant was leased to the Government as a warehouse but the lease soon will expire It will now be used to house the Scripps-Booth Motor Car Co.

The 30 per cent payment was made Sept. 3. On Aug. 1 a payment of 20 per cent was made. These two payments have reduced the original Saxon indebtedness to approximately 38 per cent.

In May the outstanding indehtedness totaled approximately \$2,500,000.

With the continuance of excellent business and the extension of credit, it is beginning to appear that the Saxon company will solve its financial problem without the re-organization originally planned.

FORT DODGE DEALERS TO HOLD FALL SHOW

FORT DODGE, IOWA, Sept. 18—Dealers of this city will have a motor exhibit at the first annual fair of the Hawkeye Fair Association, from Sept. 27 to Oct. 4. Twenty-one dealers will show passenger cars and trucks in the circus tent. A tractor exhibit will be separate

CHICAGO ASSOCIATION VOTES \$5,000 FOR ROADS

CHICAGO, Sept. 19—Members of the Chicago Automobile Trade Association at a special meeting this week voted the sum of \$5,000 to assist the Associated Roads Organizations of Cook County in its campaign for the \$5,000,000 county bond issue which comes up for a referendum vote at the November election. Of the amount voted, \$2,500 will be devoted toward defraying expenses already incurred by the roads organization, while the rest will be spent by the trades association for advertising for the good roads issue.

Members of the trade association were also urged by George Bird, a former president, to get together on their express shipments and, by co-operation, to cut their expenses. A forwarding company in Detroit is willing to give express service at freight prices if the Chicago dealers will guarantee a full carload shipment each day.

Reliance Wheel Addition

YOUNGSTOWN, OHIO, Sept. 18— The Reliance Wheel Co. will erect a new factory here on a tract of land recently purchased which is on the main line of the Erie and New York Central lines. The company makes double disk wheels for automobiles, trucks and airplanes.

El Paso Race

EL PASO, TEXAS, Sept. 18—At a conference of the race promoters here, it was definitely decided to start the El Paso, Phoenix road race from this city on Nov. 2 and finish in Phoenix, Nov. 3, the first day of the Arizona State Fair. The route taken will probably be the same as that taken in former races, through Douglas, Bisbee and Tucson, but will be changed to include Clifton, Globe and other towns in eastern Arizona.

Buffalo Body Formed

BUFFALO, N. Y., Sept. 19—The Buffalo Body Corp. has been incorporated by R. J. MacKenzie and K. B. MacDonald, owners of the Buffalo Pressed Steel Co. It will manufacture high-grade closed automobile bodies. J. S. Burdick, formerly with the Locomobile Co.. Bridgeport, Conn., has been made vice-president and will have active charge of engineering.

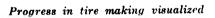
The new company will occupy the buildings on the 5½-acre site recently nurchased, formerly occupied by the Buffalo School Furniture Co., containing about 150,000 sq. ft. of floor space.



Automobile
Section of
Philadelphia's
Industrial
Parade

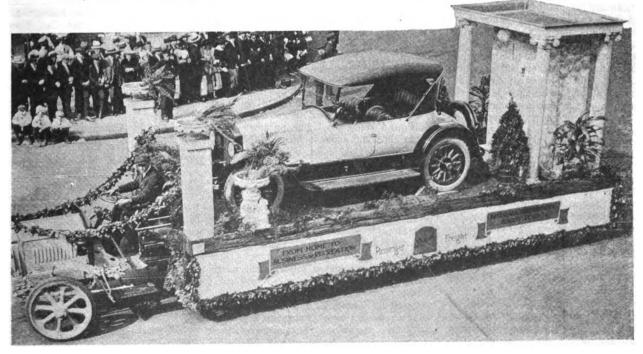








"Hatching" the new Overland Four



The Packard float was as dignified as it was attractive

TRUCK TRIP CUTS COST OF HAULAGE

Instance of Possible Savings Through Truck Instead of Freight Haulage

DETROIT, Sept. 18—As an instance of the possibility of lowering living costs through truck haulage is the fact that huckleberries were brought from the western part of Michigan recently, a distance of 75 miles, in two trucks, at a saving of \$1 per bushel. The work was done by the Signal Motor Truck Co. as a demonstration.

What was done in the case of the huckleberries is only a slight illustration of the possibility of the motor truck in cutting the high cost of living. Instead of allowing food products to be spoiled in the railroad yards or by rotting for lack of sufficient transportation facilities, truck transportation can step in and save the situation. It is a fact that a truck can be loaded, driven to destination and unloaded in less time than it takes to load a railroad car for short hauls.

Realizing this advantage, a number of motor truck transports are being formed all over the country to make regularly scheduled trips, carrying loads both ways, at rates with which, it is claimed, the railroads cannot compete. A number of Signal trucks have been sold to enter this kind of work. When the road system throughout the country is perfected the possibilities for truck haulage will know no limit.

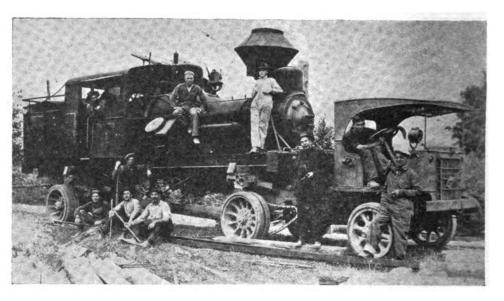
Rex Factory for New Orleans

NEW ORLEANS, LA., Sept. 18—The Rex Motor Car Manufacturing Co. has been organized to manufacture the Rex car, and its plant is already being erected here. Robert Booth, the English inventor of the Booth sectional export body, and car designer, is president and general manager. Other officers are: E. C. Upton, H. C. Maynard, A. C. Sinclair, president of the Sinclair Motor Co. and designer of the Sinclair engine, and John Studebaker Lucas, corporation lawyer.

The company's present plans call for a car built of standard parts with the exception of the Rex-Sinclair 6-cylinder engine to be manufactured by the Sinclair Motor Co. here, and which has had the approval of the professors of engineering of Tulane University. The company expects to be in production by February.

Transport Truck Expands

MOUNT PLEASANT, MICH., Sept. 19—The Transport Motor Truck Co. will move into its new \$200,000 plant Oct. 1. The new factory affords 52,000 sq. ft. of floor space for immediate use. Ultimate plans call for double that amount. The company has just issued a new \$250,000 stock issue.



Unusual Task for Motor Truck

A motor truck of modern design and construction is capable of almost any transportation task. Here is a Garford 10-ton tractor transporting, with the aid of a trailer, one of the big logging locomotives used in the lumber camps of the Northwest. The locomotive is the property of the Clipper Shingle Co., Bellingham, Wash. The company found it necessary to move this locomotive from one of its timber claims to another between which there was no connecting railroad. With the aid of a derrick the locomotive was lifted from its trucks, mounted upon the tractor and the trailer and hauled over the rough forest roads to the scene of its future operations

CANADIAN PROVINCE LICENSES AHEAD OF 1918

VICTORIA, B. C., Sept. 20—In the whole of the year 1918 the fees paid for new and renewal licenses for Victoria and Vancouver Island at the local office amounted to \$36,400, while by July 31 last more than \$6,000 above that sum had been received, the total for the seven months being \$42,656.40.

To the end of July the following was the number of new registrations for the seven popular makes: Ford, 991; Chevrolet, 589; McLaughlin, 426; Overland, 284; Studebaker, 112; Dodge, 116; Gray Dort, 94.

Iowa Lets First Road Contract

DES MOINES, IA., Sept. 18—The first actual contract for paving of Iowa roads under the new road law passed by the last Iowa legislature was let this week for five miles of road connecting Cedar Falls and Waterloo. The paving will be of brick with asphalt filler. The price per mile is \$39,388.80, which is slightly under the estimates.

Changes in Timken Axle

DETROIT, Sept. 18—The resignation of Frederick C. Gilbert, vice-president and director of the Timken-Detroit Axle Co., was accepted at a recent meeting of the Board of Directors. Other changes in executives have taken place, making P. W. Hood, former assistant secretary, sales manager. He will be assisted by Frank N. Sim, who will also remain advertising manager. C. G. Rowlette, assistant treasurer, has been elected treasurer to succeed C. W. Dickerson, who will continue as secretary and credit manager.

TEXAN DEVISES SCHEME TO REDUCE CAR THEFTS

DALLAS, TEX, Sept. 20—E. M. Brown, member of the Texas State Highway Commission, in an effort to reduce the number of automobile thefts in Texas, has devised a plan for registration which has already resulted in the recovery of more than 100 automobiles stolen during the past few months. According to his plan, when a stolen car is reported, the engine number is placed on a red card in the place where it belongs. When a new car is registered, these red cards are consulted. There are red cards in the list from every county in Texas.

There are at this time registered in Texas 301,000 automobiles and trucks, according to the report just issued. It is estimated there are 10,000 automobiles stolen each year in the state.

Finkelstein Appointed to Motor Express Division

NEW YORK, Sept. 20—The appointment of I. Finkelstein, formerly of the Division of Food and Markets of the State of New York, to the motor express division, was announced to-day by the National Automobile Chamber of Commerce. Finkelstein will act as assistant to F. W. Fenn, who is in charge of the motor express division of the organization.

Branches for Rex.

NEW YORK, Sept. 20—The Rex Ignition Co., maker of the Rex plug, has opened branches in Chicago. San Francisco, Kansas City, Philadelphia and Boston.



COMING EVENTS

Races, Contests and Tours	Tractor Demonstrations
Allentown, PaSept. 27Dirt track event.	Los Angeles, CalSeptemberRegional Tractor Demon-
St. Louis, Mo Oct. 1 National Balloon Race, International Aeronautical Federation, sanctioned by Aero Club of America.	stration under the auspices of the National Implement & Vehicle Assn.
Trenton, N. JOct. 4Dirt track event. Cincinnati, OOct. 11Speedway.	Centreville, MichSept. 23-26St. Joseph County Farm Bureau, Prof. H. H. Mussel-
Danbury, ConnOct. 11 Dirt track event. El Paso, TexasNov. 2-3El Paso-Phoenix road race.	man, Professor of Farm Mechanics at Michigan Agricultural College, Man-
Los Angeles, CalNov. 27Ascot Speedway Race. Los Angeles, CalDec. 29Ascot Speedway Race. Ascot Speedway Race.	Lincoln, EngSept. 24-27Society of Motor Mnfrs. &
Paris, FranceAugust, 1920Grand Prix Race, Sporting Commission, Automobile Club of France.	Traders, Ltd. Lincoln, EngSept. 24-27Exhibition of Tractors and
	Agricultural Vehicles, in connection with the tractor trials.
Meetings	Houston, TexasSept. 30-Oct. 2.Tractor Demonstration, Houston Chamber of Commerce, A. E. Hildebrand,
New Orleans, LaSept. 21-25Fifteenth annual convention of Associated Advertising	Mgr. Ottawa, OntOct. 14-16Tractor and Farm Machinery. Experimental and
Clubs of the World. Philadelphia, PaSept. 22-24Annual Convention, National Association of Purchasing Agents, Bellevue-Stratford.	ery. Experimental and Booth Farms, Inter-Pro- vincial Plowing Match and Tractor Demonstration.
Sheffield, Eng. Sept. 24-25 Institute of Metals. Philadelphia, Pa. Sept. 30 Motor and Accessory Manu-	Evansville, IndOct. 14-17Central States' Tractor Sales
facturers' Assn., Manufac- turers' Club.	Show, W. R. Hellman, Mgr. Ellensburg, WashOct. 15Tractor demonstration. W. L. Davis, County Agricul-
Atlantic City, N. JSept. 30-Oct. 3. Convention of Business Men called by Chamber of Commerce of U. S. to confer with foreign delegates.	Yerington, NevOct. 30Tractor Demonstration, Lyon County Farm Bureau.
Denver, ColOct. 1Directors' Meeting, National Automobile Dealers' Assn.	Shows
Cleveland, OOct. 1-4Eighth Annual Safety Congress of National Safety	Charlotte, N. CSept. 24Carolina's Automotive Trade
Council. Jackson, Miss Oct. 9-10 Second Annual Convention, Louisiana-Mississippi Assn.	Assn. New York CitySept. 24-Oct. 3. No. 1 ork Electrical Exposi-
Atlantic City, N. JOct. 14-17Twenty-fifth Annual Convention, Marlborough - Blenheim, National Hardware	tion, Electric Cars, Trucks a n d Equipment, Grand Central Palace. Dallas, TexasSept. 30-Oct. 14.Southwest Motor Show, Dal-
Association of the United States.	las Automobile and Acces- sory Dealers' Assn.
Chicago, IllOct. 15-17Twenty-sixth Annual Convention of the National Implement and Vehicle	Detroit, MichOct. 6-11Closed Cars: Detroit Dealers' Assn., Arena Gardens. Pittsburgh, PaOct. 11-18 Fall Show.
Assn., Congress Hotel. Washington, D. COct. 29First Annual Labor Conference provided by Peace Treaty.	New York CityOct. 15Opening of International Farm Tractor & Implement Exchange, Grand
Chicago, Ill	Central Palace. Chicago, Ili
Detroit, Mich	dinah Temple. New York CityNov. 16-23Automobile Salon, Hotel Commodore,
London, EngNovemberRoad Transport Congress and Exhibition.	New York CityJan. 3-10Grand Central Palace, National Automobile Chamber of Commerce, S. A.
Cleveland, ODec. 3-5Ohio Automobile Trade	ber of Commerce, S. A. Miles, Manager. New York CityJan. 3-10Eighth Coast Artillery Ar-
Louisville, KyFeb. 9-13Seventeenth Annual Convention American Road Builders' Assn.; Tenth American Good Roads Congress and	mory, Commercial Cars and Accessories. Chicago, IllJan. 24-31Coliseum, Cars: Drexel Pavilion; Trucks, National
Eleventh National Good Roads Show.	Automobile Chamber of Commerce, S. A. Miles,
San Francisco, CalMay 15-20 Seventh Annual Foreign Trade Convention.	Chicago, IllJen. 24-31International Amphitheater, Commercial Cars and Ac-
Foreign Shares	cessories. Deadwood, S. DFebruaryAnnual Show, Deadwood Business Club. F. R. Bald-
Foreign Shows	win, Mgr. Kansas Citv, MoFebruary Fifth Annual Tractor Show,
Toronto, CanAug. 23-Oct. 6. Cars, Trucks and Tractors, Airplanes and Motor Boats in conjunction with Cana- dian National Exhibition.	Kansas City Tractor Club, Guy H. Hall, Manager. Wichita, KanFeb. 9-11Tractor and Farm Machin- ery, Forum, Wichita
Christiania, NorwaySept. 10-24 Exhibition of American Goods at Trivoli Exhibi-	Thresher-Tractor Club. Louisville, KyFeb. 23-28Twelfth Annual Exhibition,
tion Grounds. Paris, FranceOct. 15Grand Palais — International Automobile Manufacturers' Congress.	Louisville Automobile Dealers' Assn., First Regi- ment Armory.
London, EngNov. 7-16Olympia Exhibition, Society of Motor Manufacturers & Trades.	Automotive Shows at Fairs
Christchurch, N. ZNovemberFirst National Motor. Glasgow, ScotlandJanuaryScottish Motor Exhibition. Manchester, EngFebruaryNorth of England Motor Ex-	Memphis, TennSept. 20-27Cars, Trucks and Tractors. Oklahoma City, OklaSept. 20-27Cars, Trucks and Tractors.
hibition. Adelaide, AustraliaMarchAll Australian exhibition of motor vehicles, airplanes, engines and automotive	J. S. Malone, General Manager. Pueblo, ColSept. 22-27Cars, Trucks and Tractors.
equipment. London, EngMarchMotor Boat, Marine and Sta-	J. L. Beaman, Manager. Salem, OreSept. 22-27Cars, Trucks and Tractors. Dealers' Motor Car Assn.,
tionary Engine Exhibition. London, EngApril or MayCommercial Vehicles Exhibi-	M. O. Wilkins, Mgr. Allentown, PaSept. 22-27Lehigh County Agricultural
tion, Olympia. Buenos AiresApril 3-May 4. Exposition of U. S. Manufactures.	Assn. (Continued on page 48)
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CHANGES In the Trade

Henry G. McComb has been made New York representative of the Weidely Motors Co., Indianapolis, with headquarters at 1790 Broadway.

Arthur B. Walker took up his new duties as sales manager of the Buffalo Pressed Steel Co on Sept. 1. During the war he was in the Handley-Page division of the Bureau of Aircraft Production. Previously he had experience with the McCord Manufacturing Co., Geuder, Paeschke & Frey Co. and the Edward G. Budd Mfg. Co.

N. J. Clucas has been appointed manager of the new Detroit sales office of the Lancaster Steel Products Co., Lancaster, Pa. Clucas comes to his new position from the Standard Parts Co., Cleveland.

John S. Burdick, formerly chief body engineer of the Locomobile Co., Bridgeport, Conn., has resigned to become associated with K. B. MacDonald and R. J. MacKenzie. owners of the Buffalo Pressed Steel Co., Buffalo N. Y., as head of the engineering department.

J. G. Vincent, vice-president of engineering of the Packard Motor Car Co. and codesigner of the Liberty aircraft engine, has been commissioned a colonel in the Officers' Reserve Corps. The appointment is to the aviation section of the signal corps and specifies a flying status.

A. B. Wagner, for the past five years Indianapolis branch manager of the Nordyke & Marmon Co., Indianapolis, has left the retail field to become assistant purchasing agent for the company, with headquarters at the Marmon plant here. He has been connected with the Nordyke & Marmon Co. since 1908. Mr. Wagner is also president of the Indianapolis Automobile Trade Association.

S. E. Weaver, for a number of years manager of the Union Twist Drill Co. in Eastern Pennsylvania and the southern territory, has joined the sales force of the Davidson Tool Mfg. Corp., New York City, to represent it in the same territory.

Herman G. Doupree has joined the Russel M. Seeds Co., Indianapolis, advertising agents. He recently returned from France after serving two years as a first lieutenant of infantry. He has been connected with the advertising of the Remy Electric Co., Prest-O-Lite and the National Motor Car Co.

L. G. Honodel has been made distributer supervisor for the United Motor Service, Inc., the service department of Delco, Klaxon and Remy. He was formerly a special representative for the company, having conducted distributer investigations in New England.

George N. Peck will become president and general manager of the Moline Plow Co., Moline, Ill., on Jan. 1, succeeding President Allen

David Penn Moreton, associate professor of electrical engineering at the Armour Institute of Technology, has been made dean of the new Ambu Engineering Institute.

A. L. Tisch, advertising manager of the Paige-Detroit Motor Car Co., Detroit, for six years, has resigned. He is going into the retail business, and has made connections with the Robb Motor Car Co., Chicago, in an executive capacity.

Victor Groiff, a lieutenant in the Bureau of Steam Engineering, Naval Reserve Force, has been appointed research engineer for the American Bosch Magneto Corp., Springfield, Mass. His previous connections have been with the Covic Electrical Co., the New York Edison Co. and the General Electric Co.

Frank A. Wickham, for the past three years sales manager of More Bros. Corp., northwest distributer of Briscoe cars, with offices at Minneapolis, Minn., and Fargo, N. D., has resigned. He has not yet announced his future plans, but will probably go in business for himself.

Major E. W. Cameron has been appointed general manager of the Reo Motor Car Co. of Canada, Ltd., with headquarters at St. Catharines, Ont. He is in charge of the distribution of Reo passenger cars and trucks for the Dominion of Canada. Cameron was formerly inspector in charge of mechanical transport for the Dominion.

H. S. McMullen has been appointed distributer for Toronto district for Nash passenger cars and trucks with offices, show-rooms, garage and service station on the northeast corner of Bay and Temperance streets. He was formerly in the firm of McMullen & Lee, Studebaker distributers, and was also connected with the Toronto branch of the McLaughlin Motor Car Co., Ltd.

L. M. Bradley, who has been allied with the automotive industry since its inception and until recently was general manager of the Motor and Accessory Manufacturers' Association, has become affiliated with the Frank Presbrey Co., advertising agency, New York.

Theodore T. Lane, until recently a lieutenant in the United States Air Service, has been appointed director of purchases for Briscoe & Stahl, Detroit, American representative of Bellenger Freres. His previous experience in automotive lines includes connections with the Maxwell-Briscoe Co., Tarrytown, N. Y.; the United States Motor Co., New York; Maxwell-Briscoe Co., Newcastle, Ind., and the Briscoe Motor Co., Jackson, Mich. He has also been connected with Dodge Bros., Detroit.

Arthur J. Slade, consulting engineer on motor transportation, has resumed his practice at 1790 Broadway, after serving two years in the army as lieutenant-colonel,

organizing and directing the engineering division of the Motor Transport Corps.

Joseph E. Otis, vice-president of the Central Trust Co. of Illinois, has been elected a director of the Stewart-Warner Speedometer Corp., Chicago.

J. Fletcher Farrell was elected a director of the Briscoe Motor Corp., Jackson, Mich., at a meeting of the Board of Directors.

Franklin Makes Eastern Trip

LOS ANGELES, CAL., Sept. 18—To open negotiations for the distribution of a line of automobiles in southern California to fit in with the Mitchell line, which his company markets in this field, George W. Franklin, secretary and treasurer of the Security Motor Corp., will leave for the East soon.

Business is booming in Southern Califormia, and the Security Corporation wants to add a line of cars to accompany the Mitchell. On his Eastern trip, Mr. Franklin will visit the manufacturing centers to contract for some desirable make. Franklin will visit the Mitchell factory at Racine, Wis., and then will go to Chicago and Detroit, thence to other factory centers. He will make his headquarters at the Congress Hotel, Chicago.

BOOK REVIEW

Motor Vehicles and Their Engines, by Edward S. Fraser and Ralph C. Jones. Published by the D. Van Nostrand Co.. New York. Price \$200.

In the present work Fraser and Jones. who were formerly instructors of the Motor Transportation Corps, Coast Artillery School, have presented an elementary treatise for the use of owners, drivers, garagemen and schools. The book covers both passenger cars and motor trucks, and explains in simple language, with the use of numerous illustrations, the underlying principles of the motor vehicle and the functions of its different parts. The whole of automobile mechanism is covered in the book, the chapters on carburetion and electrical equipment being particularly extended. Two color illustrations are used to explain the operation of carbureters and of oiling systems. While most of the book is devoted to descriptions of the functions of automobile parts, there are also chapters on how to drive, and on care, adjustment and the maintenance of cars. The book contains 352 6 x 9 in. pages and 278 illustrations.

COMING EVENTS

(Continued from page 47)

Waterloo, Iowa......Sept. 22-28.....Automobile show, in connection with Waterloo Dairy Cattle Congress; Black Hawk County Motor Trades Bureau, G. V. Orr, Secretary.

Kansas City, Kan.....Sept. 24-Oct. 4...Cars, Trucks and Tractors.
Fort Dodge, Ia......October.....First annual fair of Hawkeye Fair Assn.

Muskogee, Okla.....Sept. 29-Oct. 4...Cars, Trucks and Tractors.
Meridian, Miss....Sept. 29-Oct. 4...Cars and Tractors. A. H. George, General Manager.
Chattanooga, Tenn...Sept. 29-Oct. 4...Chattanooga Auto Dealers Assn.

Brockton, Mass....Sept. 30-Oct. 3...Cars.

Lancaster, PaSept. 30-Oct. 4. Lancaster Fair Assn. Columbia, S. COctoberColumbia Automobile Deai-
ers' Assn. Northampton, MassOct. 1, 2, 3Three-County Fair. S. E. Hickman. Mgr.
Dallas, TexOct, 6-19Cars, Trucks and Tractors. Texas State Fair.
Charleston, W. VaOct. 15-18Tractor Demonstration, Ka-
Raleigh, N. COct. 20-25Cars, Trucks and Tractors. Shreveport. LaOct. 22-27Cars. Trucks and Tractors.
Shreveport. La. Oct. 22-27. Cars, Trucks and Tractors. Coumbia, S. C. Oct. 27-31. South Carolina State Fair Assn.
Ft. Dodge, IaOctoberFall Motor Show, District
Phoenix, ArizNov. 3-8Tractor Demonstration, Arizona State Fair.
Jacksonville, FlaNov. 22-29Florida State Fair and Exposition. B. K. Hanafourde

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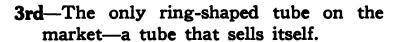
MICHELIN AN OPPORTUNITY

Notwithstanding the popularity of Michelin Tires, there are some towns where dealers can still secure this valuable account.

In these towns we offer the following:

1st—A thoroughly tested cord tire, made by the oldest pneumatic tire maker in the world.

2nd—A fabric tire of unsurpassed quality sold at a moderate price.



4th—One of the biggest and most impressive tire and tube advertising campaigns ever conducted.

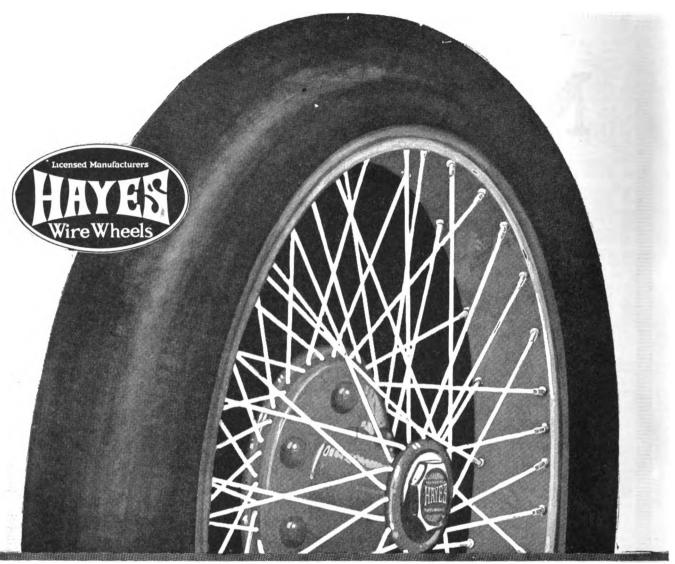
5th—Special sales helps for individual dealers.

We invite you to write us now.



MICHELIN TIRE COMPANY

Milltown, New Jersey



IT is unusually significant that a big majority of the manufacturers of better cars specify Hayes Wire Wheels as their standard wire wheel equipment. It is, of course, almost universally

recognized that the Hayes is infinitely

That, alone, would be sufficient reason why Hayes Wire Wheels are so widely preferred by owners of all types of cars. But durability, safety and fine workmanship are even greater consideration

among motor car engineers and manufacturers.

For instance, actual service shop records show that spoke replacements, in the Hayes-and spokes are almost the only parts that are ever brokenare less than 50 per cent of those in other construction.

Hayes service stations in some cities regularly supply Hayes spokes to many users of other wheels because their superiority is recognized.

Hayes Wire Wheels are the only ones with enclosed driving studs.

Engineers largely base their preference on this feature because enclosed driving studs give a greater factor of safety in 20 per cent to 25 per cent greater driving bearing service.

DEALERS: Wheels which most of the manufacturers specify as equipment for their cars are good wheels to sell. Write for our exceptional dealer proposition.

Wire Wheel Division Hayes Wheel Company Jackson, Michigan World's Largest Builders of Wheels - Wire, Wood, Steel

Brooklyn Service Co.

Brooklyn, N. Y. 1194 Bedford Ave., Hayes Wire Wheel Sales Corp.
842 Seventh Age., New York, N. Y. Evans & Lawrie Co.
1090-92 Commonwealth Ave., Boston, Mass.

Samuel Scott Philadelphia, Pa. 2038 Ranstead St.,

Miller & Woodward 3751 Bigelow Blod., Pittsburgh, Pa.

Distributors:

Brigman Motors Company 491 Whitehall St., Atlanta, Ga. Siggins Sales Company 106-108 E. Milwaukee Ave., Detroit, Mich.

Chicago Wheel & Rim Co. 2010-12 Wabash Ave., Chicago, Ill.

Auto Marine Service Co.

1027 Nicollet Ave., Minneapolis, Minn. Interstate Auto Company
206-8 E. Superior St., Duluth, Minn. Motors Equipment & Tractor Co.

1310 S. Grand Are., Los Angeles, Calif. H. V. & C. H. Carter
724 Van Ness Ape., San Francisco, Cal.

Eldredge Buick Company Seattle, Wash.

Seattle, 17 mm...
Automotive Supply Co.

Denver, Cole The Three Captains Co.
700 S. Eroay St., Dallas, Texas

HAYKEYE MOTOR TRUCKS

If you are interested in specifications—Hawkeye Trucks compare favorably with any Truck in America.

If you are interested in performance—Hawkeye Trucks can show you a very enviable record, wherever they have been introduced.

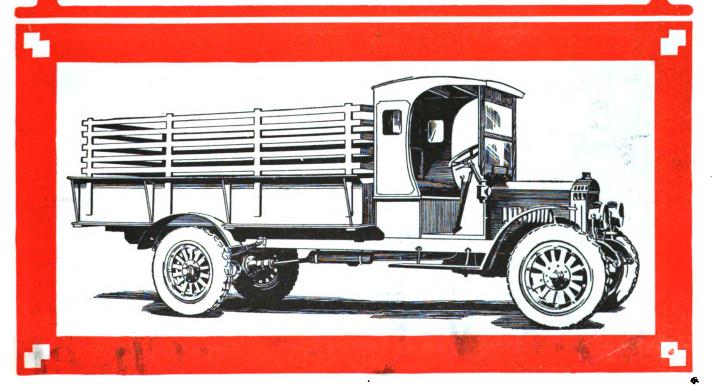
If you are interested in price—Hawkeye Trucks, while not the cheapest, retail at a very moderate price, for the quality of truck.

We should welcome an opportunity to give you more information.

HAWKEYE TRUCK CO.

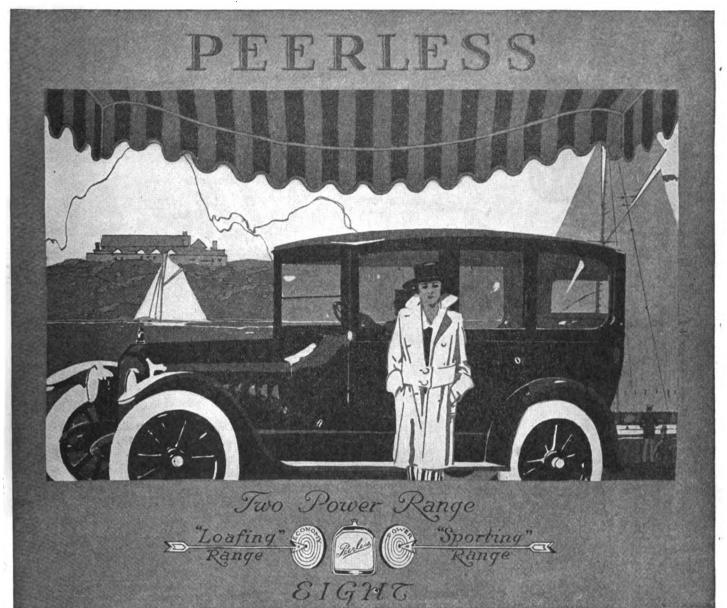
R. A. BENNETT, President

632 Sixth St., SIOUX CITY, IOWA





The Peerless Dealer's Big Advantage



Peerless Closed Car Dominance the Result of Exceptional Performance and Value

No less than for its distinctive performance, the Closed Car Models of the Two Power Ranger are especially notable for the downright value they represent.

Long established in dominant Closed Car leadership, Peerless production of closed body types is now more than half of the total Peerless output.

Our large output of Closed Cars, entirely Peerless built, with every facility for high-grade economical production, enables us to price the Sedan so low as to make it incomparable value for a car of its class.

None will doubt the rugged endurance of the wonderful Two Power Ranger, yet the Sedan is lighter than open models of other cars of similar class.

The eighty-horsepower, eight-cylinder Peerless Motor, in either the "Loafing" Range or the "Sporting" Range, has always a superabundance of power for the work in hand. In its "Loafing" Range you enjoy the utmost economy of soft, smooth, agile operation for ordinary driving. In its "Sporting" Range you have the

n its "Sporting" Range you have the ability to perform feats of speed or power of which few cars, even those of proven class, are capable.

Intelligent selection of a Closed Car involves an understanding appreciation of the advantages in performance and value offered in the Peerless Two-Power-Range Eight.

The Peerless dealer has high advantages.

The Peerless dealer has big advantages in performance and in value.

7 passenger Touring, \$2900 4 passenger Roadster, \$2900 4 passenger Coupé, \$3500 7 passenger Sedan, \$3700 7 passenger Sedan-Limousine, \$3900 f. o. b. Cleveland. Subject to change without notice

The Peerless Motor Car Company, Cleveland, Ohio



WILLING to wait! Are your customers sufficiently sold on the car you handle to wait for delivery? The large percentage of Westcott buyers who refuse to take something else and insist upon Westcotts or nothing is due undoubtedly to the unusual record this car has been making for performance and longer life. The recent expansion in Westcott advertising can add nothing to and take nothing from this record, but advertising certainly is broadening the public knowledge of this record and thereby creating new sales possibilities for Westcott distributors.

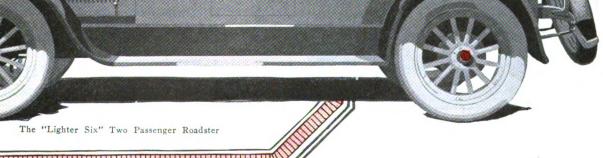
THE WESTCOTT MOTOR CAR COMPANY

SPRINGFIELD, OHIO, U. S. A.

with a Longer Life

Two Chassis Types

The Westcott is made in two types. The "Larger Six" and The "Lighter Six." Both come in a variety of body types of which one only is shown here. The two cars are alike in quality—both deserve the title "The Car with a Longer Life."



boost your sales with this United tester



The United tester is a part of the very attractive United display—a quick eye catcher that makes buyers ask for United Spark Plugs.

And when United Spark Plugs are shown, they are sold—because the superior construction and exclusive features of United Spark Plugs are so apparent.

We want you to have this tester so that you can **show** each buyer the fat, hot spark of the United Plug. The United tester is a sure sale maker.

With the United tester you can also test single or double contact lamps and horns, so that with a little flashing device you have an illuminating counter display that helps all your accessory sales.

Write direct to us or to your jobber for full information on the United tester, and other sales helps.

RETAIL PRICE

Heavy Duty (for trucks and tractors) \$1.00

Junior Type (for Passenger Cars)
75c

Ask Your Jobber for the Plug in the Yellow Checkerboard Box

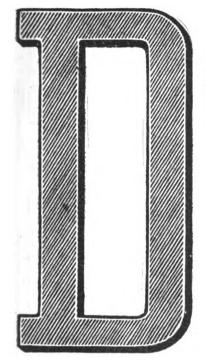
Look in the Chilton Automobile Directory and Auto Trade Directory for List of Jobbers handling United Spark Plugs.

United & DISTRIBUTING Company LAKE SHORE DRIVE AND OHIO STREET, CHICAGO, ILL.

Pacific Coast Representative A. C. RIDDELL Marvin Bidg., San Francisco, Cal, Higgins Bidg., Los Angeles, Cal.

New York Representatives GRAY-ANDREWS CORPORATION 73 Warren St., New York







Quality Goes Clear Through

Men of High Standing In the Trade

Among the retail automobile merchants of the country you will find that Dort distributors have a reputation for being capable and successful business men.

They are known as believing implicitly in practical cooperation with their dealers.

They work persistently and intensively toward giving their dealer organization every possible ounce of effective assistance.

It is their set and serious aim to make every Dort dealer connection a permanent and profitable business.

The man who holds a Dort dealer franchise may regard himself as being in an unusually fortunate position.

Dort Distributors

EARLE C. ANTHONY CO., Inc. San Francisco Los Angeles Los Angeles Sacramento San Diego Stockton

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an Diego San Jose
tockton California
ARCADE MOTOR CO.
Little Rock, Ark.
BACHMAN MOTOR CO.
Milwaukee, Wis.
BAKER-FISK-HUGILL CO.
Detroit, Mich.
BURWELL-WALKER CO.
Charlotte, N. C.
CARTER MOTOR CO.
Denver, Colo.

CARTER MOTOR CO.
Denver, Colo.
DORT SALES CO.
Filmt, Mich.
DORT SALES CO.
Kansas City, Mo.
DORT SALES CO.
Oblaboma City, Okla.
LOUIS GRYLER CO.
Chicago III

LOUIS GEYLER CO.
Chicago, Ill.
KARDELL MOTOR CO.
St. Louis, Mo.
R. V. LAW MOTOR CO.
Indianapolis, Ind.
LACROSSE AUTO CO.
Minneapolis, Minn.
MOTOR CAR EXCHANGE
Buffalo, N. Y.
W. C. McCORMICK
Williamsport, Pa.
McCUTCHEON BROS. VEHICLE &
HARNESS CO.
Springfield, Mo.
NORTHWEST AUTO CO.

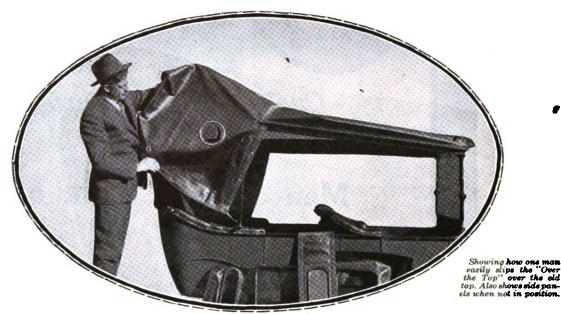
NORTHWEST AUTO CO.
Portland, Ore.
OHIO WHOLESALE AUTO CO. Toledo, Ohio
POOLE & McCULLOUGH MOTOR CO.

POOLE & McCULLOUGH MOTOR CO
Atlanta, Ga.
SECURITY MOTOR CO.
Dallas, Texas
TOOZER-GERSPACHER MOTOR CO.
Omaha, Nebr.
UNION MOTOR CAR CO.
Memphis, Tenn.
UTTERBACK-GLEASON CO.
Albany, N. Y. Bangor, Me.
Boston, Mass.
VALDOSTA MOTOR CO.
Valdosta, Ga.
WM. WARNOCK CO.
Sioux City, Ia.

COMPANY CAR DORT MO

Canadian Factory, Gray-Dort Motors, Ltd., Chatham, Ontario

Protection Against Winter



"Over the Top" Auto Top

Baker "Over the Top" Auto Tops afford protection against the cold of winter. Quickly turns a touring car into a sedan. No joints to rattle. Simply slips snugly on over the old top. Can be attached to the car much easier than ordinary side curtains. Made of high grade Artificial Leather and furnished with real glass in side panels, thus giving perfect road vision, from all seats.

These tops are very popular because they are practical, dependable, and reasonable in price. Side curtains can be removed, leaving an open summer top. Have trim appearance same as regular top. No special frame. No bulky, box car appearance to cause a top-heavy feeling.

"Over the Top" Auto Tops weigh but 30 to 50 pounds. Your customer can carry one out under his arm. Require very little shelf room. There's an "Over the Top" Auto Top for all popular American made cars. Every touring car owner appreciates its trim appearance and special value. Full information on request.

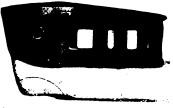
We also have ready for delivery many other popular "Baker Necessities", such as "Over the Top" Auto Tops, Anti-Draft Shields, Foot Pedal Shields, Bad Weather Mats, and Rain Guards.

BAKER LOCKWOOD MANUFACTURING CO.

BROOKLYN, N. Y.

KANSAS CITY, MO.

CHICAGO, ILL. 3021-23 Michigan Ave.



Showing the complete top with side curtains. Side panels open up with doors.

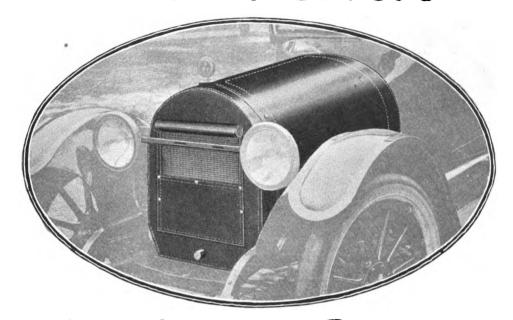




Showing the top without curtains. Can be snapped on in a jiffy. Bacer Bon of the sext since 1070

Baker Hood and & Radiator Covers





Big Business Builders for Live Dealers

Be prepared for the great demand for "Baker" Hood and Radiator Covers! With "Baker" Hood and Radiator Covers there is no longer any danger of frozen radiators or cracked water jackets. Retain this motor heat for hours. When given this protection, motors run better during the coldest weather.

Always look neat and nifty. Made of heavy, flexible and durable materials. Linings are thick and warm. Absolute protection against coldest weather.

All "Baker" Hood and Radiator Covers are sold on an absolute money-back guarantee. If they are not satisfactory as to fit and exactly as specified, we will replace free of charge.



Dealers everywhere are selling "Baker" Hood and Radiator Covers and every user is highly satisfied. Write at once for 1919 catalog which fully illustrates and describes them.

We also have ready for delivery many other popular "Baker Winter Necessities" such as "Over the Top" Auto Tops, Anti-Draft Shields, Foot Pedal Shields, Bad Weather Mats, and Rain Guards.

BAKER LOCKWOOD MANUFACTURING CO.

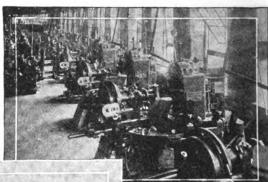
BROOKLYN, N. Y. 473 Kent Avenue KANSAS CITY, MO.

CHICAGO, ILL. 3021-23 Michigan Ave.



Fellows Gear Shapers

The Ten-Acre Plant of the New Process Gear Corporation



Gleason Spiral Generators

Spiral Bevel Gears Operate Quietly

They require expert gear-knowledge to make and when built right are a distinct asset to any car.

We have the largest equipment of any gearmanufacturer for producing Spiral Bevel Gears. Our factory can accept orders for differentials and meet exacting delivery dates. We also make gears for transmission.

New Process Gears are backed by 26 years of progressive gear-building.

New Process Gear Corporation

Syraouse

Member of the

New York



New Tocess Fews

Stewarts Selling Fast— Dealers Making Money

10 Stewart Salesmen in 30 Days Closed Sales Amounting to Nearly

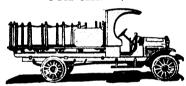
\$300,000.00



3/4-Ton Chassis—\$1195
(With Electric Starter, Electric Lights,
Magneto Ignition.)



1-Ton Chassis-\$1650



11/2-Ton Chassis-\$1975



2-Ton Chassis-\$2575



3½-Ton Chassis—\$3500 All Prices f. o. b., Buffalo

Below are the July, 1919, sales made by ten Stewart salesmen, selected at random from the selling organizations of ten Stewart Dealers in various parts of the United States. These results are convincing proof that Stewart Trucks are quick sellers and money makers for Stewart dealers.

- Ed. Herrman, of New York, sold \$61,575 worth of Stewarts in 30 days.
- Joe Barback, of Buffalo, put over sales to the tune of \$38,475.
- M. E. Newald, of Milwaukee, put across \$31,150 worth of Stewarts.
- John Williams, of Des Moines, cleaned up with \$27,475.
- Herb Schoepflin, of Buffalo, put over sales amounting to \$26,325.
- Ed. Wissler, of Marysville, Cal., came through with sales amounting to \$22,025.
- E. L. Rice, of Dayton, Ohio, sold 11 Stewarts amounting to \$17,725.
- The sales of R. G. Leftwich, of Lynchburg, Va., went over the \$16,000 mark.
- Maurice Aisenberg, of Worcester, Mass., sold Stewarts amounting to \$14,625.
- J. L. Brady, of Springfield, Mass., closed sales to the amount of \$13,955.

A few choice territories open for Live Dealers



STEWART MOTOR CORPORATION

BUFFALO, N. Y., U.S. A.

RACINE Absorbing Shock Strip

Supreme mileage achievement. Exclusive feature Multi-Mile Cord.
Takes up jolts. Adds extra miles.

Note Non-Skid Tread

Be a Profit Maker

ONTINUED triumphs of Racine dealers point the way to real dealer opportunity and permanence. The Racine Plan gives you a complete and proved sales line — Racine Multi-Mile Cord and Racine Country Road Fabric Tires.

Advertised Everywhere

In Racine Multi-Mile Cord you have an unequaled sales feature—Racine Absorbing Shock Strip, gives miles of extra service.

Racine Country Road Fabric is especially designed for severe country road service. Racine Tires and Racine Supreme Tire Sundries are all EXTRA TESTED to insure greater mileage.

We help dealers in every merchandising way. Our national farm-paper and newspaper advertising, plus "go-getting" dealer helps mean money in your till.

Racine distributors, conveniently located, give immediate service and every assistance.

Racine Rubber Co., Racine, Wis.

Write Today RACINE

MULTI-MILE CORD & COUNTRY ROAD FABRIC



\$3 per pair any size

West of the Rockies, \$3.50

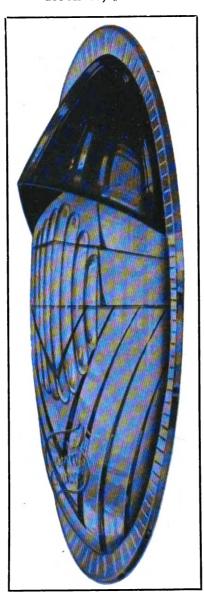
Canada \$4 per pair

Here is the new lens that is so rapidly climbing into favor— The Violet Ray.

You can look into it with the light on full without batting a n eye.

Make such a test yourself. Then try the same stunt with any other lens.

The Violet Ray Lens is made of blue glass and blue absorbs all glare rays.



The Violet Ray gives you a big, white light on the road.

The best driving light you ever drove behind.

The light is thrown down and to the sides where you need it.

And the black visor prevents any dangerous upward shafts.

The smart design and color add a dressed-up appearance to the car.

Dealers handling the Violet Ray are glad to acknowledge a change for the better in the lens business. The demand is taxing our factory capacity. Write for our dealer proposition. We also make the More-Lite Lens, over a million pairs of which are now in service.

L. E. SMITH GLASS CO.

Mount Pleasant, Pa.





REAT power and dependability are combined with convenience, speed and ease of operation in each of the Rees Double Worm Gear Drive Jack truck models. Following their extensive use on Government motor trucks, tractors, and tanks, they were placed on the general market and already have been adopted as standard equipment by several of the foremost truck manufacturers, as well as by prominent operators of large fleets of trucks.

By exhaustive comparative tests Rees Jacks have been proven to exert the maximum lifting power, with a minimum of effort applied. Their remarkable efficiency is due to the double worm gear drive, applied here for the first time in any jack. Thus end thrust and side strain are entirely eliminated and friction is reduced to a minimum. Our high standards of materials and workmanship insure the utmost dependability in Rees Jacks.

Rees Jacks are conservatively rated. They do their full work easily with one man operating them. They have a reasonable overload capacity with an ample factor of safety to meet any emergency. There are several truck models of various capacities for different sized trucks.

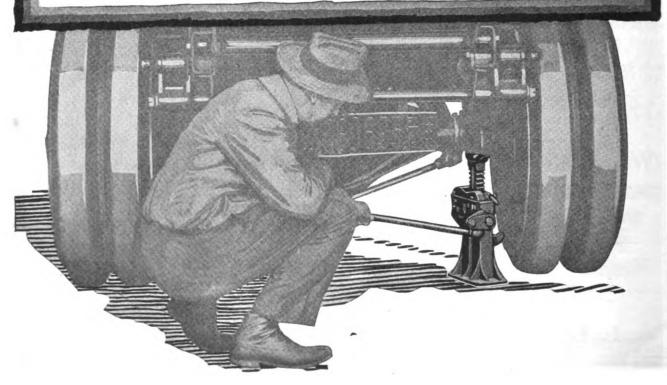
Jobbers-Dealers

If your territory is still open we can make you a highly profitable proposition. Our national campaign is now running in The Saturday Evening Post, The Literary Digest, and other media, and sales are increasing tremendously. In the Rees you are offered a complete line of jacks for automobiles, trucks, railway, and industrial purposes. Write for complete information.

IRON CITY PRODUCTS CO.

Dept. 18

7501 Thomas Blvd., Pittsburgh, Pa.





SAVAGE

The product about which we have been talking for the past month is a

REAR AXLE

In a series of announcements during the next few weeks we will outline to you some of the undesirable things that Savage axles will not do.



SAVAGE ARMIS CORPORATION
SHABON.PA.

UTICA

NEW YORK

DETROIT

PHILADELPHIA.



SAVAGB

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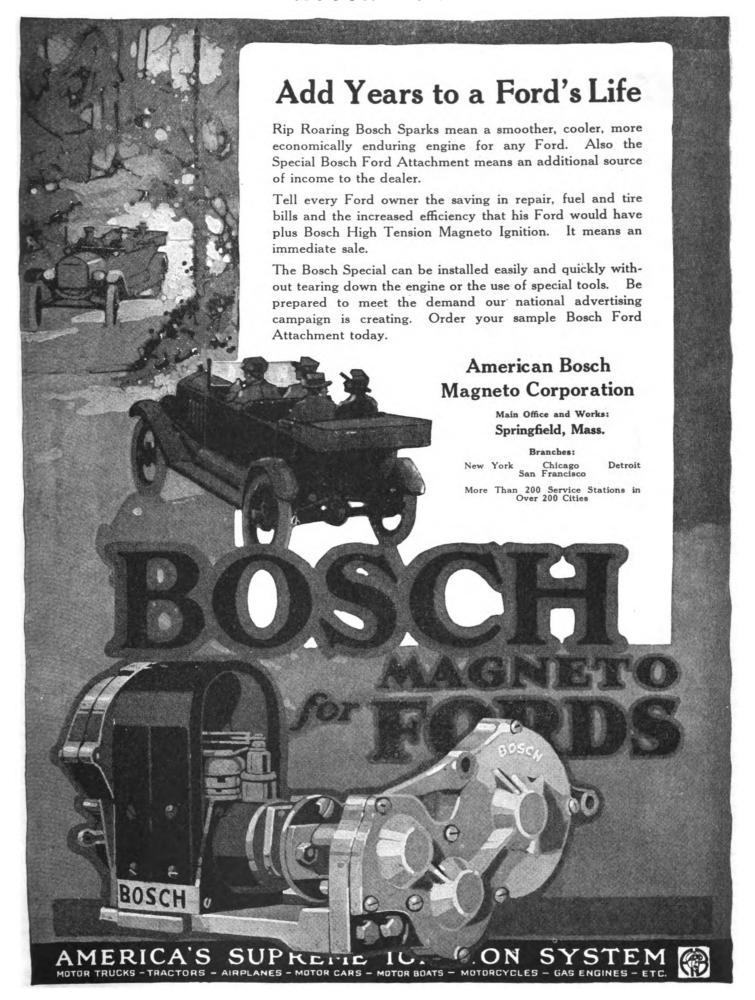
SAVAGE ARMS CORPORATION
SHARONJPA

UTICA

NEW YORK

DETROIT

PHILADELPHIA





STARTING LIGHTING IGNITION SYSTEMS



4-Wheel-Drive Truck

Doesn't it make you wish that as much could be said about the year-around performance of your trucks?

One day in early springsnow still on the groundthis truck, owned by the Wisconsin Hemp Co., Brandon, Wis., hauled out unassisted twelve stalled trucks of various makes on a 32-mile strip of road.

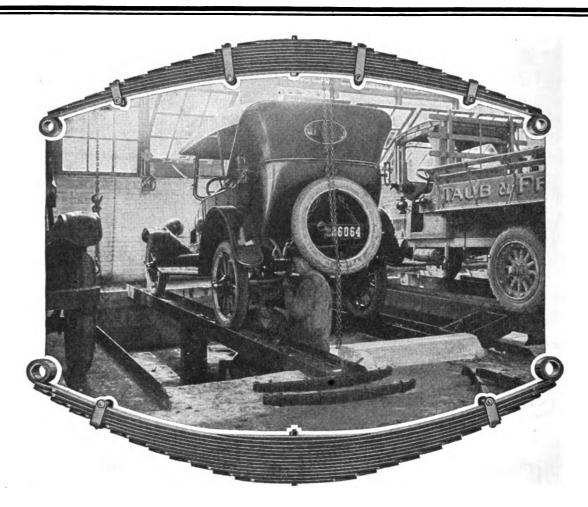
Then you'll be interested in having us prove to you that with the OSHKOSH this is no isolated case.

5½ tons is the usual load for this truck with trailer. It makes long and short hauls (mostly long) in good and bad weather, over good and bad roads (mostly bad) and keeps right on going over places where trucks of higher rating are stalled.

The Oshkosh 4-Wheel-Drive attains practically 100% transmission of motor power to the four wheels, all of which are driving wheels—front ones pulling and rear ones pushing. In this truck there is virtually no power loss due to road slippage, whereas, with the two-wheel drive the average loss on good roads is 20%. We can lay before you plenty of proof that the OSHKOSH 4-WHEEL-DRIVE hauls a capacity load at greater speed, on less gas, than other two-ton trucks.

The truck for the user to standardize on-The truck for the dealer to build business on.

OSHKOSH MOTOR TRUCK MFG.CO. OSHKOSH, WIS.



Stan-Par Spring Service

The equipment pictured above is not necessary to Stan-Par Spring Service, although it may contain a suggestion or two for you.

We can show you how to make Stan-Par Spring Service an important part of your business.

> Write for our proposition and Spring Price Catalog

THE TANK OF THE COMPANY

JOBBING DIVISION

CLEVELAND, O.

If you charge Batteries—

Would you waste 2634 watts to deliver 3220 watts, when

you need lose only 357 watts to deliver the same 3220 watts?

THE great economy of the Stahl Rectifier, Model SX (Commutating System) is that, with its 1/4 h.p. meter and under full load, it requires only about 41/3 h.p. to operate it. It consumes only 3577 watts of which it delivers 3220 watts—a loss of only 357 watts.

20% to 25% lower in price than motor generator sets of same capacity

A motor generator set with the same delivery (3220 watts) consumes about 5854 watts, and requires over 7 h.p. This is a loss of 2634 watts. And this three-sevenths which the Stahl System saves in the current it takes from the electric power line, will soon pay for this entire Stahl outfit.

Stahl Rectifier

is the most flexible charging outfit ever marketed. Any combination of batteries from 18 to 33 cells can be charged on each circuit. Because of an independent regulator for each circuit, these three circuits can be charged at any rate from 4 to 12 amperes. One circuit can be charging one line of batteries at a rate of 10 amperes; another circuit can be charging at a rate of only 5 amperes; while the third circuit can be charging at an entirely different rate—all three operating at the same time.

90 per cent efficient under full load

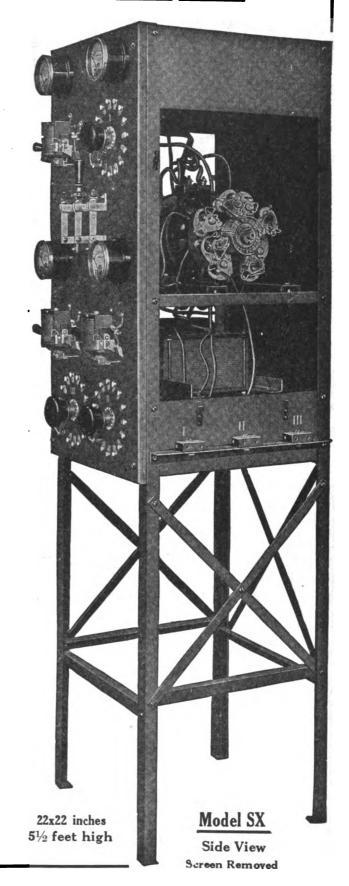
The Stahl Rectifier, Model SX, is complete with switchboard, voltmeter, ammeters and voltage regulators, all ready to connect up to main line and batteries. It can be set out of the way, requiring a space of only 22 inches square and $5\frac{1}{2}$ feet high.

We make charging apparatus of various capacities. Write for catalog and state what your exact requirements are.

STAHL RECTIFIER CO.

1405 West Jackson Boulevard

CHICAGO, ILL.

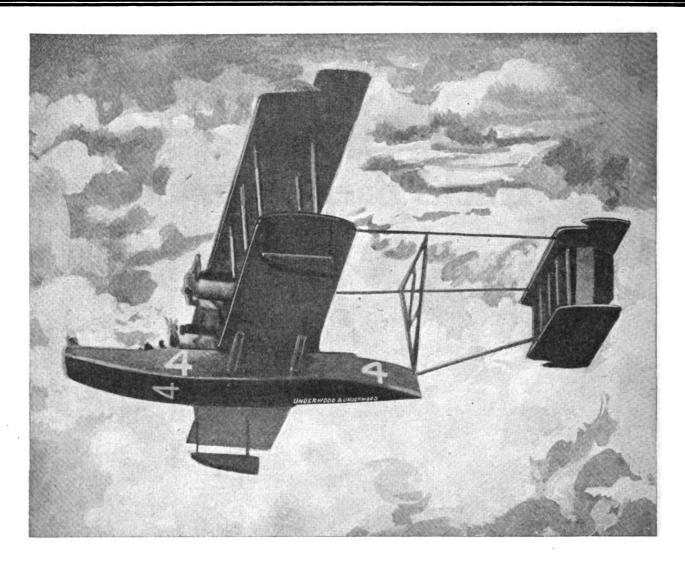




The Service of

F-W-D Trucks Backs Your Judgment





There is MORE POWER in

THAT GOOD GULF GASOLINE and SUPREME AUTO OIL

Manufactured by GULF REFINING COMPANY, Pittsburgh, Pa.

FFICIENT, perfect and constant lubrication was the greatest factor in the ultimate success of the adventurous trip of the NC-4. Hence the Navy left nothing to chance. Grilling, practical tests, scientific investigation, exhaustive research, were all combined against the possibility

of disastrous engine troubles resulting from poor lubrication.

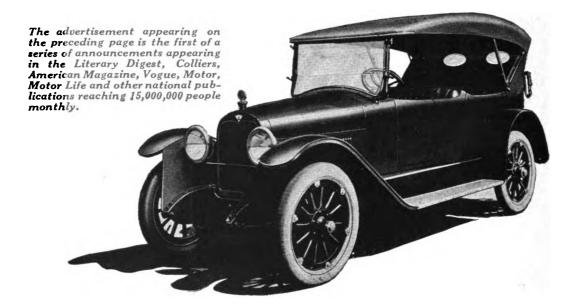
The choice of GULF LIBERTY AERO OIL, therefore, was made with a positive knowledge that it would fulfill every requirement, and the success of the NC-4 has proven the wisdom of the choice.

SUPPLIED BY

GULF REFINING COMPANY

Manufacturers of SUPREME AUTO OIL and THAT GOOD GULF GASOLINE

MILES of SMILES In three words that's what possession of the AMERICAN Balanced Six means to you. Miles and miles of smooth going over good roads and bad alike. Countenances always alight with the smile of pure enjoyment that goes with perfect motoring. -the Smile of Contentment -the Smile of Proud Ownership -the Smile of Health -the Smile of Happiness Miss Marilynn Miller of the "Follies"— -and her lovely smile behind the wheel of Every mile you cover in the AMERICAN is a mile of added joy. Over its balanced chassis you ride with such ease. Rough roads have no terrors for you. Sharp turns do not affright you. Your car holds the road at all speeds. No slip-no sidesway going around corners. And, on the straight road you just smile the miles away! This motoring ease and comfort which is the outstanding characteristic of the AMERICAN is the inevitable product of its balanced construction. By a scientific distribution of weight the load is divided over each of the four wheels almost to a fraction of a pound. The chassis is not underweighted at the rear nor overweighted at the front. Each wheel carries an equal share of the burden—with an effect on the riding qualities of this Balanced Six that is little short of amazing. This is the secret and the explanation of AMERICAN success. It is this fact that makes this marvelously Balanced Six known, wherever it goes, as the Smile Car. TOURING CARS ROADSTERS SEDANS 122-INCH WHEELBASE 45 HORSEPOWER American Motors Corporation FACTORY: PLAINFIELD, NEW JERSEY he Balanced Six



A COVETED FRANCHISE

THERE are so few cars with features of vital significance that the real innovation embodied in the AMERICAN Balanced Six spells "opportunity" to every progressive dealer.

In keeping with the soundness of its design and construction, the success of this BALANCED Six has been phenomenal.

Wherever this master car is offered, its dealers invariably share the benefits of a spontaneous popular endorsement unparalleled in motor car distribution.

Such widespread approval can be explained only by the fact that in this car of superlative excellence the principle of BALANCE is applied for the first time to a light-weight chassis.

Almost revolutionary in its aggregate effect on performance and durability, the incorporation of this principle in the

AMERICAN Balanced SIX has stamped the latter with a degree of approval that is practically unanimous.

In effect it is reflected in this unique car by an amazing roadability that is fast winning for it a national reputation as "The Smile Car."

You, as a dealer, are interested in those qualities in a car that would appeal to you as a buyer, PLUS a sound opportunity to

realize materially on your investment of money and effort. Liberality and whole-hearted co-operation are the chief characteristics of our franchise. The demand is great and increasing. Some territory is still unallotted. Write us for particulars.

TOURING CARS 45 HORSEPOWER ROADSTERS SEDANS 122-INCH WHEELBASE

AMERICAN MOTORS
FACTORY AND SALES OFFICES

CORPORATION PLAINFIELD, NEW JERSEY



115

\$1,500,000 Spent to Make These Three Models Right \$10,000,000 Available for Tractor Sales, Plant, Machinery, Materials

The 6-12 General Purpose—28inch clearance for cultivatinga one-man outfit with driver riding on or over implement.

F. O. B. Milwaukee

Chalmers farm

\$10,000,000 **Tractors** is the money available for Sales Co-opera-tion, for Materials, 6-12 Machinery, and for our huge new tractor plant, just finished
—a part of our 116-acre general
manufacturing plant at West Allis,

Send for the details of our Sales Co-operative Plan and how it works for you-the biggest plan ever put behind any farm implement and offered by one of the largest manufacturers of machinery in the world.

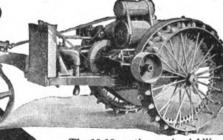
ALLIS-CHALMERS MANUFACTURING CO.

Farm Machinery Dept.

Milwaukee, Wisconsin

Automobile Dealers: There is a big opportunity for you selling tractors. In the past four years we have spent \$1,5000,000 in perfecting our three models—this is the price we have been willing to pay for the good will of the American Farmer. In making the sales this good will must create, you are offered the opportunity of qualifying as our represent-

F. O. B.



The 10-18-a three-wheel Allis-Chalmers, double opposed motor, will pull four 24-in. disc plows—other work in proportion.

18-30

10-18

1985 F. O. B. Milwaukee

Mfg. Co.
Farm Machinery
Dept.
West Allis, Wis. Gentlemen:
Kindly send me full
details of your Dealer
Co-operative Plan.

Chalmers



TRIONE

The Three-Piece Snap Piston Ring

with the Angle Beam Inner Ring

The Inner Ring

The inner ring of the Trione ring is built on the same principle as the supporting beam in heavy structural and bridge work. It alone would be of sufficient strength to act as a complete piston ring.

Many of the best jobbers are stocking Trione Piston Rings.

SALES DEPARTMENT

BAILEY-DRAKE CO., Inc.

1120 South Michigan Ave.

CHICAGO, ILLINOIS

BRANCHES:

New York - N. Y.
Detroit - Mich.
Dallas - Texas
Atlanta - Ga.
San Francisco - Cal.
Kansas City - Mo.
Minneapolis Minn.
Seattle - Wash.

The Trione makes the threepiece piston ring practical.

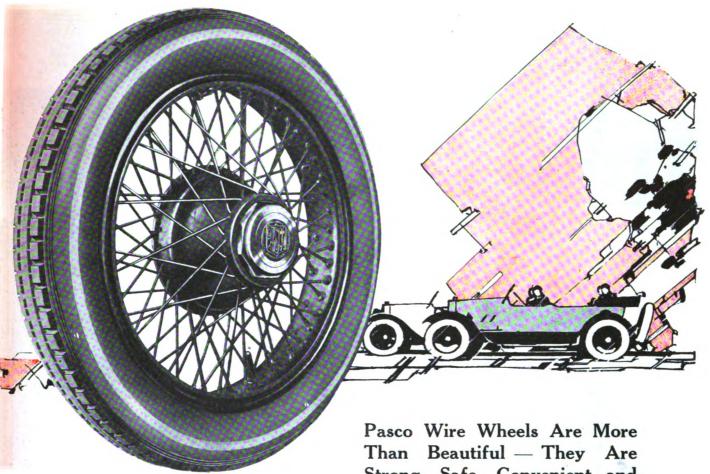
Three snap rings combined in one.

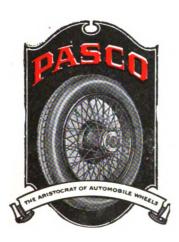
As easy to install as any snap ring.

As strong as any snap ring, because all the angles are right angles.

Triply effective, because the gap is sealed and three-point expansion insures true circular expansion.







Strong, Safe, Convenient and Economical.

The large demand for Pasco Wire Wheels is based chiefly on their beauty and quality. Car manufacturers, dealers and motorists in increasing numbers are showing their appreciation of the remarkably handsome appearance of Pasco equipped cars.

Beauty and quality, however, are not the only advantages of Pasco equipment. It is we'll not to lose sight of the numerous exclusive mechanical features which give Pasco Wire Wheels their exceptional strength, safety, convenience and economy.

It is well to remember, too, that Pasco Wire Wheels can be interchanged with wood wheels without sacrificing the standard 56-inch tread.

It will pay you to know about Pasco Wire Wheels.

National Wire Wheel Works, Inc. General Sales Offices: 416-417 Book Bldg., Detroit, Mich.

Plant No. 1, Geneva, N. Y. Plant No. 2, Hagerstown Md. Montreal Canada: Th: Northern Electric Co., Ltd.







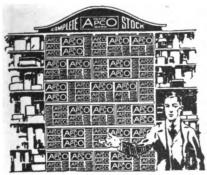
MetalOilGauge

It cannot break, it will not clog; it tells the truth about the oil at a glance in darkest night or broad daylight. As necessary to the car as hands to the clock.

Here, at last is an oil gauge you can recommend and sell at a profit 300 days a year.

Costs You \$780 Per Dozen Retails at \$1.00 each

Order from your jobber. If he cannot supply you write us direct, giving his name, and we will have your order filled.



Your store needs a complete APCO department. Let us show you how an investment of \$60 will place a complete stock of these fast-selling, nationally advertised, profitmaking trade marked needs for Fords in your store.

APCO MFG. CO. Providence, R. I.

Largest exclusive makers of equipment for Ford Cars in the World.

Consists of a metal chamber containing a float to which is attached a rod with a white ball on the end. The distance between the ball and the top of the gauge indicates the height of the oil in the case. This height can be determined at night and no amount of dirt can obstruct the view or interfere with its operation. The installation is very simple. Remove the lower pet cock, thread the gauge in its place and screw the pet cock into the gauge. Each gauge packed in a box.

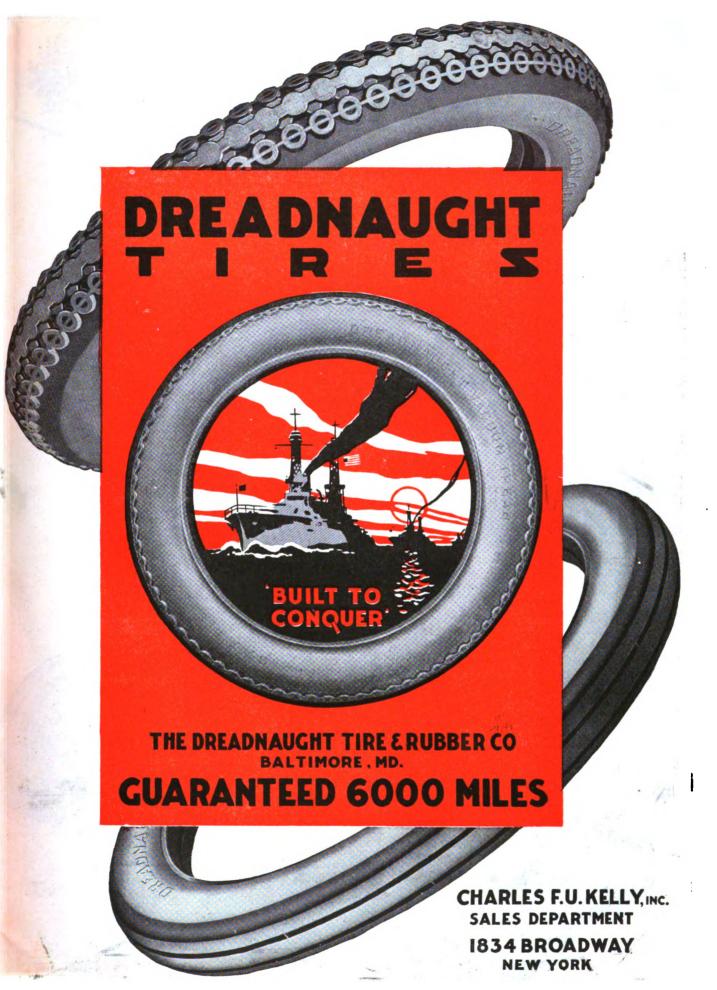


APCO Manufacturing Company Providence, R. I.

Gentlemen: Please send at once One Dozen Apco Metal Oil Gauges for Fords, to cost \$7.80 net. Also new 1920 Catalog of the Apco Line.

Name	••••••
Address	•••••
Wholessler's Name	





GOODRICH CEMENTLESS PATCH



PLIERS CAN'T REMOVE IT

It will stretch—but it won't pull off. Part of the tube itself will come out before Goodrich Self-Vulcanizing Patches come loose. They are permanent repairs—applied cold and without cement. Ten minutes running on this Goodrich Patch vulcanizes it inseparably into the tube. The easiest and most permanent tube patch made. Assorted sizes packed in cans for your tool box, at any Goodrich Dealer. THE B. F. GOODRICH RUBBER COMPANY The City of Goodrich-AKRON, OHIO



Here's the "ZIP" Display Case

Place it in the window, inside, or on top of the show case. It's a neat, attractive little salesman that tells its own story. Fifty pieces of illustrated literature packed in each case, showing exactly how the "ZIP" patch is applied.

CASES ARE PACKED AS FOLLOWS

1 Dozen of the 50-cent size (25 sq. in.)
1 Dozen of the \$1.00 size (54 sq. in.)
2 only of the \$1.75 size (144 sq. in.)

SOLD IN ROLLS FOR GARAGES, TIRE REPAIR HOUSES, ETC.

DON'T FORGET THAT "ZIP" IS THE REAL TUBE PATCH
NO CEMENT NO HEAT NO SKILL

Write for prices and particulars

BAKER AND LOCKWOOD MFG. CO.

BROOKLYN, 473 Kent Ave.

KANSAS CITY, MO.

Established 1870

CHICAGO, 3021 Michigan Ave.

ITS SUCCESS

HE REASON there is such unanimity among trade leaders in their endorsement of MOTOR WORLD'S annual Winter Business Number is because of its great influence among dealers to the end of ridding the interim, from October to April, of the deadly dip from the business curve.

We believe that December can be made to show as much profit for dealer, jobber and garage owner as July—if there is concert of action to educate the trade along proper channels.

It is MOTOR WORLD'S function to preach Winter Business and to educate the trade how to cash-in on Winter Business activity.

An industry that is concerned and is willing to help MOTOR WORLD in furthering its Winter Business propaganda among the better

-AND WHY

class dealers in every section of the country is invited to join in making our 1919

ANNUAL WINTER BUSINESS NUMBER

a greater success than any of its predecessors.

This all-important issue will be published Oct. 15. It will be an editorial achievement. It will promote a degree of constructive helpfulness throughout the entire trade that will be of greatest benefit to the industry as a whole.

Last advertising forms will close on Monday morning, Oct. 13—but please send copy and cuts early as possible and insure best advantage to you and to us.

MOTOR WORLD, 239 W. 39th St., New York



"So blamed busy, I haven't time How About You to sew up the rip"

What do your repairs cost you?

How much time was spent on each job?

Does your Mechanic know what to do with the Machine after he gets it?

What material is used on repair work?

Have you an office record?

Does your customer get an invoice?

Can all this be done in one writing?

Comfort's Triplicate Repair Orders, Form 100, does all the above in one writing.

How many days was a transient's car stored in your Garage, and what supply and repairs did he get?

Comfort's Garage Storage Tag, Form 16, takes care of this.

Have you a record of all cars in your Garage, what the license number is and who drives the car, engine number, etc.? This is required by law in many states.

Our Form 120, Garage Register, will take care of same.

How many tires have you in stock? When are they sold and to whom? Can any be sold without your knowledge?

Our Form 25, Tire Stock Tag, is an insurance against it.

Does your customer buy all his Gasoline and Oil from you?

Comfort's Gasoline Commutation Tickets make this possible.

How much Gasoline did Bill Jones buy from you today?

Have you his receipt for same?

formation.

Comfort's Form 110, Gasoline Sales Ticket, provides the above.

How much Gasoline did you sell today?
How much have you on hand?
Do you know daily your profit on Gasoline?
Our Form 111, Daily Gasoline
Report, gives you all the above in-

Have you a record of what has been done each day by your employees?

Our Form 52 will answer this for you.

Do you have a Used Car Department?

Do you take in old cars in part payment on new cars?

What is the estimated value of the old car? How much did it take to overhaul it and put it in selling condition?

Our Used Car Tag, Form 35, is just the thing for this Department.

How many Bevel Gears have you in stock? How many did you sell in the last year? Who were they sold to? Are any missing? Where can they be found in your stock room?

Our Forms 60 and 61, Stock Room Record Card, keeps an accurate record of the above.



If you knew a fellow who had a big rip in his money pocket through which a goodly part of his money wasted away and that same fellow said, "I am so blamed busy I haven't time to sew up the rip." Well, you would say, "It seems to me that fellow has a rather poor idea of the economy of time."

There's food for thought here.

You automobile men are in the midst of the season. Things are humming. The shop is busy. You have your hands full.

It is, you say, no time to take on extra work. And you are right.

But when does it pay best to take the necessary time to sew up a rip in your money pocket—when the pocket is full of money or is empty?

There you have the reason why, at this time, more than any other time, you should have a system that watches the dollars.

That's the purpose of the Comfort Standardized Tags and Forms. This system is the watch dog of your profits.

The busier you are the easier it is for time to be put on a job and not billed for; material and parts to be used and not charged for. The busy shop has greatest need for Comfort Standardized Tags and Forms. The question column at the left will quickly help you determine some of the forms you are in dire need of.



DAILEY MOTOR BODIES Service That Helps

You Sell Trucks

A Dailey Agency is an added sales weapon and a source of substantial profit. It enables you to promptly supply the most suitable type of truck body-that will quickly clinch the truck sale.

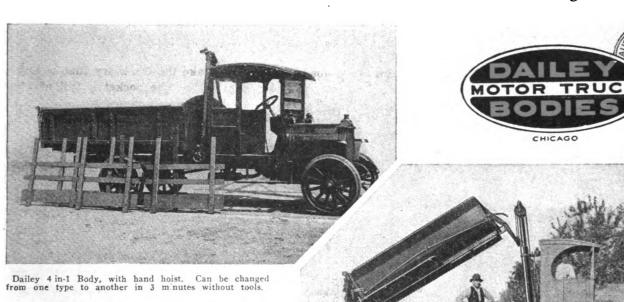
You can secure all types of wood and steel bodies from us, immediately. No costly delays—no time lost hunting around for the proper body.

Our engineers know the haulage problems of every business. They assist the dealers in the selection of bodies properly designed.

We have always on hand a large stock of Dailey 4-in-1 convertible wood bodies and standard steel bodies. These bodies can be shipped at once or we can build a special body of any design in record breaking time.

Write for booklet on various types of bodies and dealer discount.

H. R. DAILEY, Auto Truck Steel Body Co. 3028 Carroll Ave. Chicago





Dailey Hand Hoist, sturdy and efficient. Occupies but 9 inches of space on chassis. For trucks of all capacities.



Hydraulic Hoists - for use with steel bodies and for heavy duty work.

Standardized special steel bodies—any style—any design—built for long life and severe service. Delivered promptly.

STEEL AND WOOD BODY DISTRIBUTORS

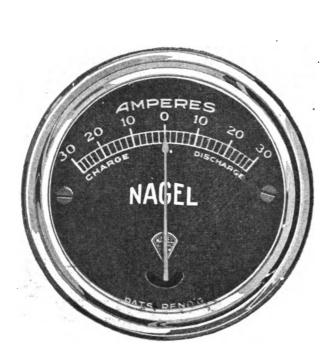
Hydraulic Hoist Mfg. Co., 715 Lorraine Avenue, Detroit, Mich.
Auto Hoist & Body Co., 333 Avenue B, New York City, N. Y.
Troy Trailer Co., 5 North 21st Street, Philadelphia, Pa.
Thomas & Company, Braddock Avenue, near Forbes Street, Pittsburgh, Pa.

Auto Truck Steel & Wood Body Co, 1815 N. 23rd St., St. Louis. Mo. Auto Hoist & Body Com-pany, 18 Bainbridge Street, Brooklyn, N. Y. Simplex Body Co., 140 Rhode Island Street, Buffalo, N. Y. The Truck Engineering Co., 3533 Cedar Ave., Cleve-land, Ohio.

Simplex Mfg. Co., Connessed-ville, Pa.

The John Immel & Sons Co., Columbus, O.

Springfield Commercial Body Co., 385 Liberty St., Springfield, Mass.



In use on over 1,250,000 cars.



YOUR battery would be a hidden secret without a good ammeter on the dash to show what the battery is doing.

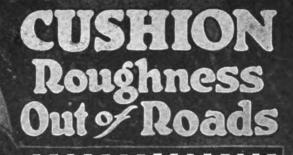
When you push a button for starter, lights, horn or ignition, you are using current which must be replaced. It all must be put back and a Nagel ammeter shows whether the generator is doing it.

What the Nagel arrow tells is important to know—watch it!

The Nagel Ammeter is standard equipment on Allen, Auburn, Briscoe, Chevrolet, Collier, Economy, Empire, Maswell, Mitchell, Moore, Moline-Knight, Oldsmobile, Oakland, Overland, Pan, Piedmont, Stephens, Soripps-Booth, Willys-Knight passenger cars and Collier and Gramm-Bernstein motor trucks. Also endorsed by use by the makers of the Auto-Lite and Romy Starting and Lighting systems.







Save Trucks and Trucking Costs

Gillette Solid Truck Tires possess the resiliency of a pneumatic—sponge up shocks—cushion roughness out of roads. They save the truck—save repair costs. And they possess wear-resistance that keeps them on the road longer than any other solid truck tire ever produced. They save tire costs.

This nearest-the state of perfection ever achieved in production of a Solid Truck Tire, is made possible by the perfected Gillette Chilled Rubber Process—a refining treatment that toughens rubber without robbing it of resiliency.

A trial is sure to prove the Gillette your idea of ideal Solid Truck Tire.

Gillette Rubber Company General Sales Office: 1834 Broadway, New York

Factory: Eau Claire, Wis.

A Bear for Wear



One Cleaner for Any Windshield or Any Car

Presto-Felt Cleaners are made of chemically treated felt, which deposits a chemical film on glass, insuring a clean windshield and a clear vision in any storm. No need to drive blindfolded. A "PRESTO-FELT" affords sensible insurance against accidents. A vital necessity for every auto driver.



Here the Cleaner is shown bolted directly through the glass. Rubber buffer prevents break-

Fits Tight-Can't Rattle Cleans Both Sides at Same Time

Holders are made of oil tempered spring steel, giving uniform tension, and positively prevents rattling. One cleaner fits any type of windshield—clamps over top-bolts through the frame or through the glass.

Special roller attachment permits cleaner to slide on windshield, cleaning full width of glass. All necessary parts furnished without additional cost. Patented attachment operates both sides at same time. Satisfaction guaranteed.



shield. Illustration at top shows

how Cleaner is attached over top of windshield

Price \$2.00 At your dealer's, or sent direct on receipt of price and your dealer's name.

Dalers Wanted Everywhere

Write for details and special proposition.

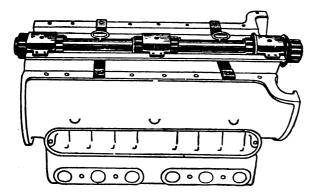
Presto-Felt Mfg. Co. 120 N. Erie St. Toledo, Ohio, U.S.A. Eastern Offi e, No. 2 Park Square, Boston, Mass.

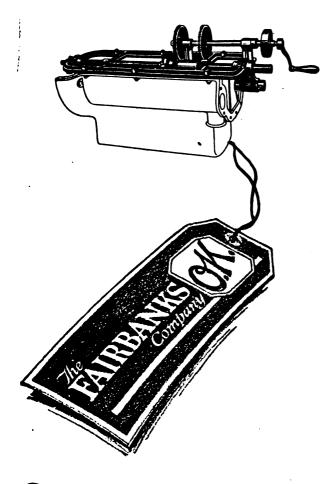




How to build a better business in

The Hempy - Cooper Jig and Boring Machine. Price Complete \$125 for Ford, \$150 for Fordson.





EVEN with skilled help the scraping in of a set of Ford Crankshaft Bearings has been slow work—and the bearing surface, very often was not perfect.

But garage and service station men are finding a better and more profitable way to do jobs of this kind.

After melting out the old babbitt, they put on the Hempy-Cooper Babbitting Jig. The new babbitt is poured. The bearings are then bored by a Hempy-Cooper Boring Machine. This machine is aligned by lugs entering the camshaft bearings, thus keeping the gear centers accurate.

The crankshaft and new bearing caps are next put on. They are screwed down tight, without oil. The cylinder block is placed in an American Junior Burning-in Machine, which rotates the crankshaft at moderate speed. After two or three minutes, the friction and heat against the alloy-steel shaft push the yielding babbitt away from the high spots and the bearing surface shows the high polish of a perfectly-finished bearing.

FAIRBANKS

Sole Distributors for The Service Station Equipment Company,
The Hempy-Cooper Manufacturing Company, The Peterson
Engineering & Manufacturing Co., The Groetken Pump
Company, and other manufacturers of garage equipment.

Company



MILL, MINE AND RAILWAY SUPPLIES

SCALES VALVES

POWER TRANSMISSION

MACHINE TOOLS

replacing Ford Engine Bearings

The net result is not only better work, but a time saving of from 5 to 7 hours—time which you would have paid for—time which the customer would have lost through the car or truck being out of service.

Customers appreciate this time saving. Repair men find that it also leads to more frequent sales of new crankshaft bearings to owners who want Ford and Fordson motors overhauled.

Up-to-date equipment of labor-saving machinery insures confidence in your repair shop. These devices and many others come to you under "The Fairbanks Company O.K."-a guarantee known and respected by every user of mechanical equipment and supplies. Catalog 8 contains much information—write for it today.

Write for Catalog 8—just issued

THE FAIRBANKS COMPANY

Administrative Offices: NEW YORK **BRANCH HOUSES**

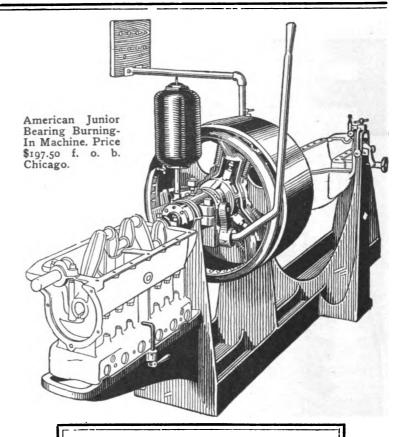
Albany Baltimore Birmingham Boston Bridgeport Buffalo

Detroit Hartford Newark New O New Orleans New York Philadelphia

Pittsburgh Providence Rochester Scranton St. Louis Syracuse Utica

Washington
Havana, Cuba
London, Eng.
Birmingham, Eng.
Glasgow,
Scotland
Paris, France

A new device that tests engines without running them-watch for next week's advertisement.



Profit-making machines and tools for the Ford and Fordson Service Station:

Bearing Burning-in
Machine for Ford
and Fordsons
Motor Test Stands
Engine and Axle Stands
Bearing Boring Machines and Re-Babbitting Jigs
Cylinder Reboring Machines for Fords and
Fordsons
Straightening Presses Straightening Presses Arbor Presses Power Grinders Power Grinders
Air Compressors
Transmission Reaming
Machines
Special Ford Reamers
Rear Axle Sleeve Pullers
Radiator Test Plugs
Piston Clamps
Connecting Rod
Straightening Jigs
Bench Motor Clamps
Transmission Drum
Clamps

Rear Axle Pinion Gear Pressee Pinion Gear Pullers Piston Bushing Reamcrs
Crank and Cam Shaft
Testing Machines
Emergency Wheel
Clamps
Wheel Pullers Wheel Pullers
Valve Port Renewing
Tools
Bushing Drivers
Turning Bars
Speed and L Wrenches
Special Jacks
Rim Tools
Tow Bars
Combination Combination Electric
Drills and Valve
Grinders
Visible Measuring Gasoline Pumps
Special Ford and Fordson Tools and Machines

The Sole Distributors for The Service Station Equipment Company, The Hempy-Cooper Manufacturing Company, The Peterson Engineering & Manufacturing Co., The Groetken Pump Company, and other manufacturers of garage equipment. Company





Sol Barbarino Says Philbrin Ignition Made His Peugeot the Fastest Race Car of its Size in the World

—And N. D. Sturgis Gets 16¼ Miles to the Gallon of Gas on His Hudson Touring Limousine

A NEW chapter has been added to ignition history by the invention of the Philbrin condenser and contact maker. Users of Philbrin Ignition are recording achievements in economy, speed, flexibility, acceleration and an all-around improvement in engine performance that they had thought possible.

On July 28; after a race at Sheepshead Bay, Sol Barbarino sent the following telegram to the Philips-Brinton Co.: "Driving my Baby Peugeot equipped with Philbrin Ignition in match race with another Peugeot equipped with magneto, won as I pleased. Philbrin Duplex Ignition has made my Peugeot the fastest race car of its size in the world."

His competitor, Ira Vail, was so greatly impressed by this performance that he decided to install Philbrin on his cars. After a thorough test on an Essex, he wrote the company as follows: "I have driven this car over 1,200 miles without trouble of any kind. I find the car is faster, starts easier, and throttles much lower than

before. I am using at least 20% less gasoline and am so well pleased that I have asked Mr. Stringer to equip my Duesenberg race car and also my 75 H.P. Mercedes touring car with Philbrin Duplex Ignition."

In his letter of August 7, N. D. Sturges, President of the Multiple Storage Battery Co., states that since installing a Philbrin System his Hudson Touring Limousine "has run, under varying conditions of open road and traffic in and around New York, on an average of 16½ miles to the gallon. This is a remarkable performance for a car as heavy as mine. The car has everything in the way of speed, power and acceleration that can be desired, and I cannot endorse too strongly all the claims you make for Philbrin Ignition."

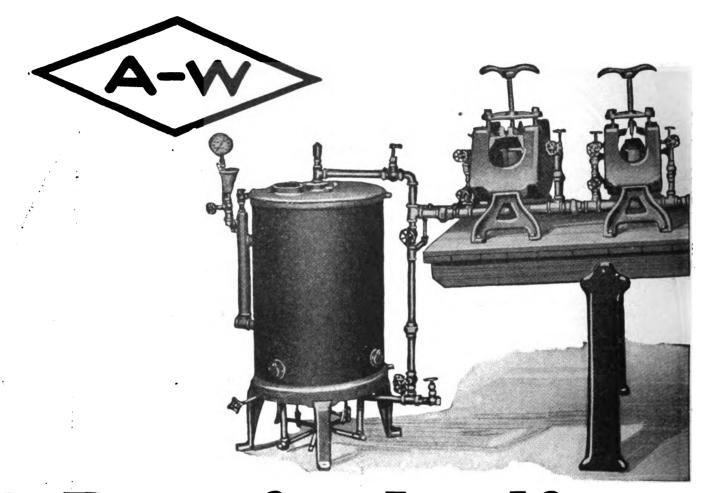
Philbrin can be installed in place of any ignition system you are now using. Write for descriptive literature.

PHILIPS-BRINTON COMPANY
503 South Broad St., Kennett Square, Penna.





Get This Outfit



It Pays for Itself—

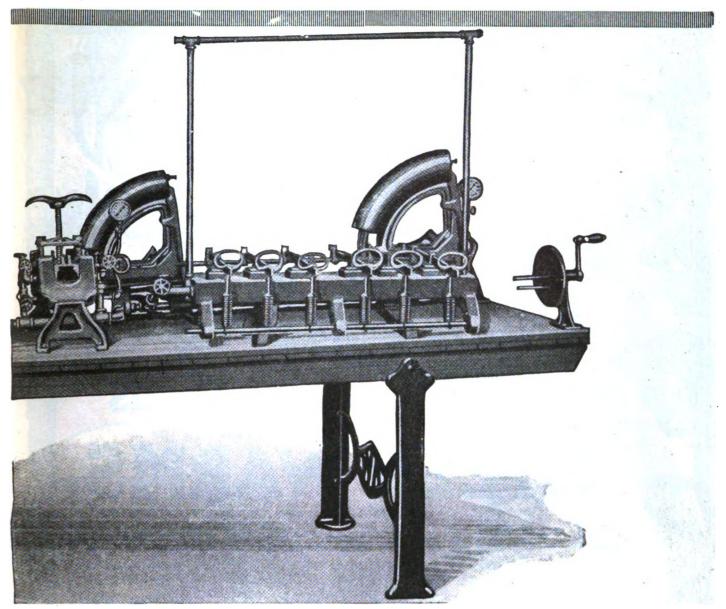
If you're in the tire repair business or thinking of going into it, the Akron-Williams consulting engineers have a message for you. Write them today and get the complete story of what this Model R Tire Repair Outfit will do for you.

Makes your work easier. Saves money by eliminating spoiled material. Turns out perfect work the first time. No more "second-time" jobs.

Pleases your customers, because the repairs "stand up."

Builds business, because every Akron-Williams repair is a boost for more.

Akron-Williams



Builds a Big, Profitable Tire Repair Business

PACE is lacking to list all the good individual features of this Model R Outfit. But it includes equipment for doing all kinds of casing repairs on auto tires from 2½ inches to 5 inches. Includes also an inner-tube vulcanizer, tube deflator, two inside patch vulcanizers and steam generator.

You may need this complete outfit or you may need only one piece of vulcanizing equipment. Whatever you are planning, write us before deciding. Nothing is too large or too small for us to handle. From one sectional vulcanizer to equipment for a tire factory, Akron-Williams machinery is equal to the situation.

Let our consulting engineers help solve your tire repair equipment problems. Write us. No obligation to buy.

The Williams Foundry & Machine Company, Akron, Ohio Everything in Tire Repair Machinery and Tools

Tire Repair Equipment







The Motor is the Keystone

Judge the car by the motor—What you want is reliable performance. When you see a car equipped with a Lycoming Motor you can be sure you have the car you have

been looking for—that the rest of its equipment may be judged by the high quality of the motor.

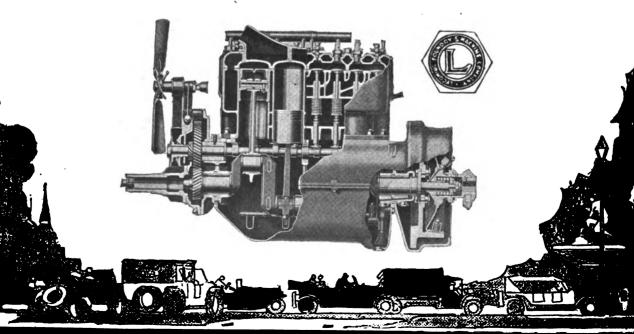
of the Whole Car

No fads, no frills, no extravagant and sensational

features which boost the price, but straight performance qualities giving you your money's worth in power, reliability and long service.

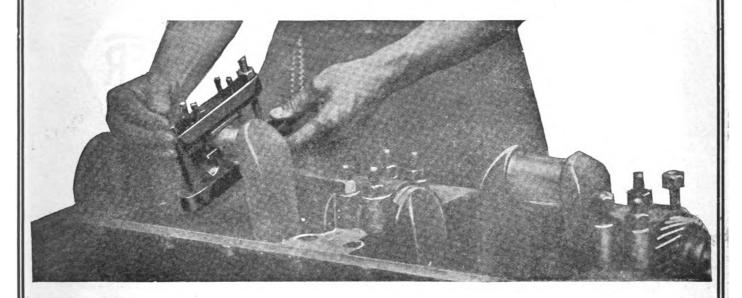
Model K, 4 cylinder, L-head, 3 point suspension. Bore 3 1/2", 5" stroke. S. A. E. h.p. 19.6, 30 B. H. P. at 1450 R.P.M.

Lycoming Foundry & Machine Co. Williamsport, Pa.



THE MOTOR FOR THE DISCRIMINATING CAR BUILDER

The Quick, Easy and Profitable Way to Grind a Crankshaft



JUST one job pays the cost of an Atlas Abrasive Tool (Patented).

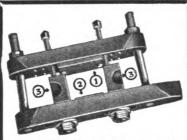
No experience required. The Atlas simplifies crankshaft grinding.

No lathe or other equipment required. Use a vise if you like, but remember that the crankshaft need not be removed from the crank case.

One hour completes the work on any crankshaft.

No machine shop guarantees greater than two-thousandth of an inch accuracy. With the Atlas you get onethousandth.

If you need an Atlas but once a year, it accommodates your customer, puts a good profit in your pocket and



1. Hardened and tempered steelcutter. Cuts in one direction only.

2. Bronze track bearing. Cannot cut ring in pin like hard steel nor freeze against pin from friction like soft steel

Adjustable Abutment Blocks, which slip easily up against the face of the crank pin and hold the cutter and track in their proper working place.

gives you a reputation for service.

Another hand tool would cost from five to ten times the price of an Atlas—you would not get Atlas convenience—nor simplicity of its one cutter principle—nor the saving of time in making adjustments.

Adjustable to crank pins and bearings up to $2\frac{1}{2}$ inches diameter for all passenger cars and trucks.

Hundreds of garages and repairshops are enthusiastic users of the Atlas Abrasive Tool—it's selling like hot cakes.

A good mechanic would rather part with a \$50 bill than with his Atlas, if he could not buy another.

Price, complete, with cutter, \$10, postpaid. Extra cutters (including bronze bearing tracks) good for from 10 to 20 pins or bearings, 30c each. Wire your order today.

Atlas Mfg. Co., North Canal St., Pittsburgh, Pa.

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NATION WIDE SERVICE

The jobber is your friend; he is interested in the selection, the installation and the maintenance of your equipment. Your success is his success. Naturally, then, the jobber through salesman and correspondence, is always at your service. You may be distant from the factory but there is a Brunner jobber near you.

Your air system is valuable in proportion to the work it does without trouble. Therefore, it is important that you purchase from a company truly interested in your success, ready to help you in selecting the right outfit and prepared to offer prompt maintenance service.

Brunner equipment, all sizes and styles, is handled by 70% of the important jobbers. Wherever you are located, the Factory offers, through one or more of these representatives, whatever service you may need. Factory men are available in emergency.

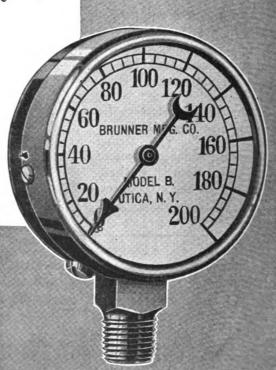
Tell us how we can serve you best. Write for illustrated folder

BRUNNER MFG. CO.

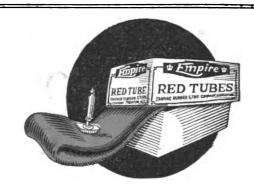
MAIN OFFICE AND PLANT
UTICA, N. Y

Branch Cincinnati, Ohio.





Empire Red Tubes last as long as the average car itself



"the proof of the pudding"

One of the lessons a business firm has to learn is to jucge its success not by the compliments it gets, but by the complaints it gets. But when the compliments come all the time with a complaint only once in a dog's age, you rather feel like telling the world about it. That is the excuse for printing below a few of the letters received at the factory of the Empire Rubber and Tire Company, at Trenton, N. J., which go to prove the truth of the oft repeated statement "Empire Red Tubes last as long as the average car itself."

"Just a word on your Red Tubes. I have used nothing but Empires for the past four years. At present I have two Empire Red Tubes that have gone over 45,000 miles; one of them has twenty-five patches on it, but is still on the job, well earning its name 'wear longest.'" C. E. RETEAU, Newark, N. J.

"In September, 1913, I put an Empire Red Tube in a 35 x 4 casing. The tube has been used daily since that 35 x 4 casing. The tube has been used daily since that date, carrying at all times from 60 to 75 pounds of air under a car weighing 2840 pounds unloaded. It has run in all kinds of weather for almost 5½ years, and today it is on the right front wheel, with 70 pounds of air pressure in it. It is some tube."

J F. PARDUE, Alvarado, Texas

"If you have a salesman in this territory, will you have him call on us the first time he is in this vicinity. Occasionally we run across an Empire Red Tube to be vulcanized, and we always find that they will stand more curing and vulcanizing in one place, without injury to the tube, than any tube we have ever run across."

McKINLEY & FAIRCHILD, Auburn, N. Y.

"Mr. E. L. Forslund, who has charge of the Prest-O-Lite Service Station, for the Madrid Auto Company, made a rubber apron to use in his battery work from a 34 x 4 Empire Red Tube. The mark A. E. is on the apron, and shows the tube was made in October, 1912. The rubber is still in perfect condition and does not show any 'checking.' Mr. Forslund says Empire Red Tubes wear almost forever."

M. O. COOLEY

"For a number of years, when changing regular Ford wheels over to Baker Demountable Wheels and Rims, we have also changed the tires and tubes. About a year ago we began using Empire Tubes exclusively. So far we have used over 4,000 of them, and the way they have stood up is simply remarkable."

O. J. IPSEN, 250 West 54th St. New York, N. Y.

"We have sold 'Empire Red Tubes' for five (5) years, and in all that time have sent in only two for adjustment. They are the best we have ever sold. Many Empire Red Tubes we sold five years ago are still in ser-

IVER IVERSON, Jewell, Iowa

"I have two Empire Red Tubes that have been in service over a period of five years and are still in good condition."

A. D. THOMAS, Detroit, Mich.

"Since I have undertaken to push your line, would say that I have sold several thousand Empire Red Tubes with not a single complaint."

> RUDOLPH HENSCHEL, 1675 Broadway, New York

"We have sold Empire Tubes for the past five years, and know from experience that they certainly do 'last as long as the average car itself.' Quite a few Empire Red Tubes that we sold five years ago are still in use, although the cars that they originally supported have been junked."

C. H. JOHNSTON, Oskaloosa, Iowa

"William Anderson recently purchased an Empire Red Tube which he used in a new 30 x 31/2 tire on his Ford. This casing rolled off the rim twice, releasing the tube with about fifty-five pounds air pressure in it. The tube enlarged to the size of a man's body, not in one spot, but evenly all around. It did not blow out and is still in service as good as new."

R. T. SIMPSON, Litchfield, Mich.

"I have in my possession a 32 x 3½ Empire Red Tube that I used for about six years. The tube was finally disposed of as equipment on a car sold second hand. After the present owner had let it hang in his barn about a year, he brought it in to see if it was any good. I find the stock is just exactly as good as when I purchased the tube."

C. C. WOODMANSEE, Marshalltown, Iowa

"How about that Empire shoe and tube? I expected to mount it on the 'southeast wheel' tonight. My reason for selecting an Empire was based upon the wonderful service I am getting from an Empire Red Tube. This tube has been in almost constant use for over four years. It has had two large blowouts vulcanized and a number of small punctures patched. I had occasion to repair it a few days ago, and the rubber was apparently as full of life as any new tube I have ever seen

CHAS. M. SWART, Philadelphia, Pa.

THE EMPIRE RUBBER AND TIRE CO.

TRENTON, N. J.



Pagneto-Generati

Now in Production

For 4-Cylinden Motors of All Sizes

NOW that the United States' war-time mands for this Company's products—protically 100 per cent—have lessened, we ready to meet the urgent and long-standidemand for a high-tension Magneto and powerful Generator driven from one shaft (therefore easily installed) but still two distinctly separations.

A New Eisemann Product

The Magneto-Generator

Type M4 G6—6 Volts

has been created and perfected after exhaustive experimental road and laboratory tests covering a period of three and one-half years. It is compact and waterproof and furnishes the engine with the dependable high-tension Magneto ignition of the recognized superior Eisemann quality, and, at the same time, generates a separate current—charging the battery for electric starting and lighting.

Send for Descriptive Booklet



Plant and General Offices:
32 Thirty-third Street, Brooklyn, N. Y.

CHICAGO: 910 S. Michigan Avenue DETROIT: 85 Wiflis Avenue, West LONDON, ENG.: Stanley J. Watson, 37 Sheen Road

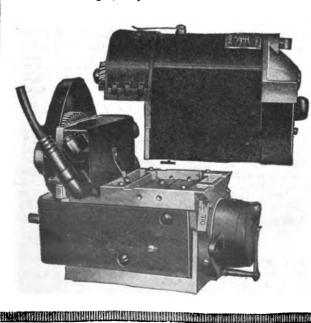
Service Stations Everywhere

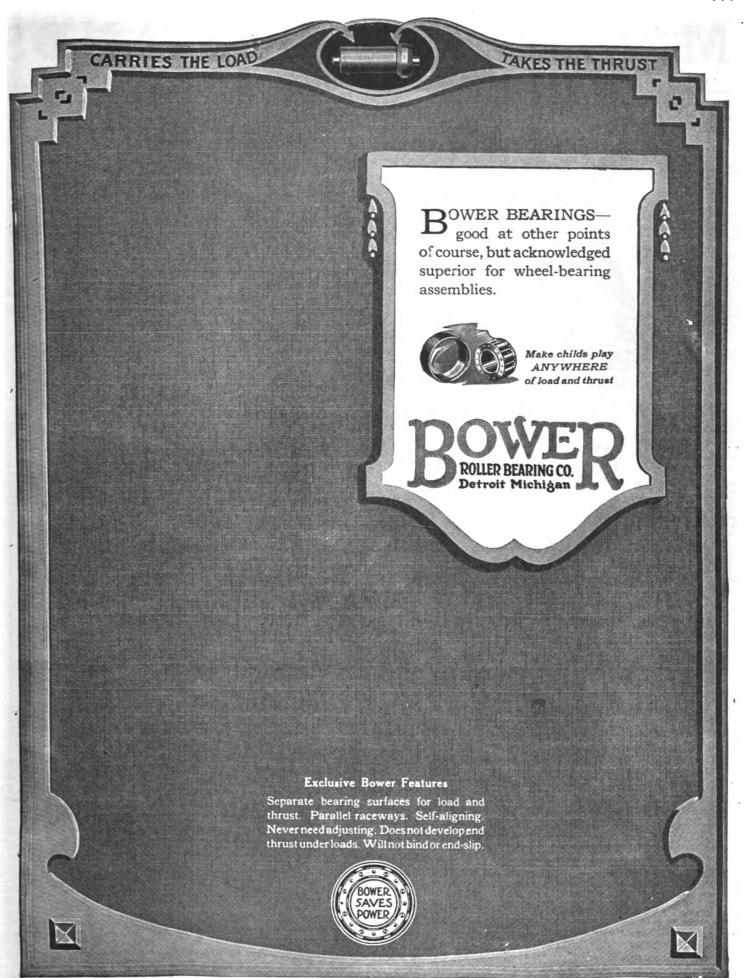
The mounting and drive are interchangeable with any four-cylinder magneto of S.A.E. dimensions, necessitating absolutely no changes whatever in your

Parts comprising the magneto unit are the same as our standard type G4.

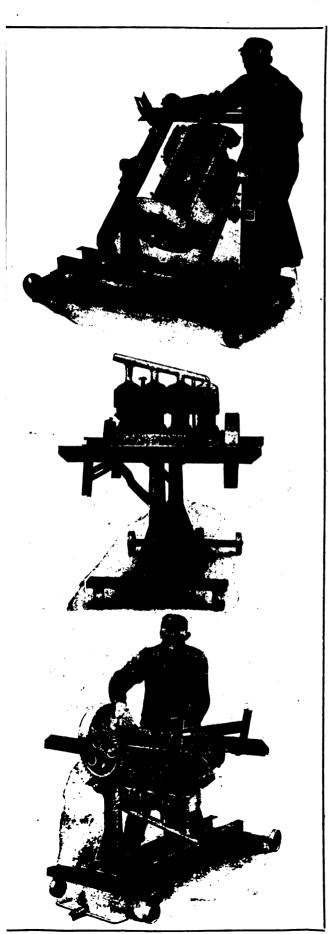
As the Generator itself is removable, it permits the Magneto to be left intact for the operation of the engine.

Total weight, only 24 lbs.





MANLEY ENGINE STANDS



You can repair engines without an ENGINE STAND—just as you can drive a car without electric starter or lights—BUT

It is inconvenient; and you do a poorer job; and you lose time and labor. USERS HAVE LEARNED THAT ENGINE STANDS PAY.

And during four years of service the MANLEY ENGINE STAND has proven that it is pre-eminently superior to any other stand for the following reasons: There is nothing to obstruct the workman—he has free access to any part of the engine.

There are no unnecessary beams, cross pieces, levers, bolts, or disks.

The Stand-construction is practically the same as the Chassis Frame. It is rigid and heavy without spring or vibration while work is being done.

And the Base is narrow so that the workman can stand right close up to the engine and see what he is doing without bending over and feeling his way.

The Manley Engine Stands mount any type of motor suspension—4 point, 3 point or Ford. Adjustments are all universal. The engine is held in any desired position—100 if wanted—and each position locks rigidly.

"Manleys" are manufactured in Two Sizes; Portable and Stationary; Plain and Geared. There is also a specia Ford Stand.

Write for descriptive catalog "W" of Manley Garage and Shop Equipment.



PRESSES.
CRANES.
ENGINE
STANDS.
BENCHES.
WRECKING
CRANES.
OILSERVICES.

THE MANLEY MFG. CO.

York, Penna.



Why Pay for Adjustments?







PATENTED

PATENTED

Tremendous demand throughout the entire motoring world. All Walker Rods covered by patents. Don't buy infringements. Stocked by nearly all jobbers. If yours can't supply you write us. Walker Radius Rods reinforce—strengthen regular Ford Radius Rod. Brace front axle—help keep it straight—eliminate bending and breakage. Quickly attached without drilling holes. Clamp securely to rear of regular rod—fasten to axle, using regular Ford perch boil except in 701, which clamps to front axle.



No. 701—Made of solid %-in. steel rods. Malleable clamps. Weight, 12 lbs.



No. 702—Made of 1-in. x 1-in. x 3/16 in. Angle iron. Wt. 8 lbs.



No. 703—Made of 1-in x 1-in. x 1/4-in. Angle iron. Jointed arms. Weight 5 lbs.



o. 704—Made of ½-in. tubing, Mallcable threaded clamp. Weight 5 lbs.



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"The car builder's choice is good enough for me"

More than 8 out of 10 cars are GILMER equipped

ERE'S a Fan Belt that stays on the job long after ordinary Belts have commenced to slip or stretch or stick or have become unfit for efficient service.

Exhaustive laboratory experiments and hundreds of road tests have proven that the Fan Belt that resists heat, oil and moisture will wear longest and best.

The Gilmer scientific process of treating and weaving. Belting made of long staple cotton was one of the most important discoveries made in Belt history.

Thanks to this process, Gilmer Belts completely resist heat, moisture and oil, which means that when in use the character of this Belt never changes from the moment it is installed until it is completely worn out. It never stretches nor shrinks, never grows hard and slippery or loses its shape.

It never jumps or jerks at the joint, or splice, because there are no joints or splices. Gilmer Fan Belts are woven endless, one continuous strip that permits the Belt to grip the pulley "true and snug" all the way around with never a slip or a jerk.

Follow the judgment of car builders when buying a Fan Belt. They know. Eight out of ten cars being built today are equipped at the factory with Gilmer Belts. If so many car builders, after making hundreds of scientific experiments and road tests, all agree on one make of Belt, the reason is very obvious.



Ship by Truck

Answers the Call of the Lumberman

(An extract from an advertisement by H. S. Firestone, President, Firestone Tire & Rubber Company, which appeared in the Literary Digest of Sept. 13th)

N the logging camps, at the sawmill and in the retail lumber yards, the motor truck is giving striking proof of its useful-

Its capacity for greater loads, its extreme mobility, its tireless energy have already effected remarkable changes in taking out the logs and in distributing the finished lumber. Some authorities

believe it will entirely supplant the horse in this field. Others say it has already revolutionized the industry.

A Big Logging Camp's Experience With Ship by Truck

The Barker Logging Company's camp at Bellingham, Washington, has been using trucks successfully and profitably for over sixteen months.

In one day 65,000 feet were handled from the loading point to the dump, a mile and a half away, with three 5-ton trucks. The timber that this concern is taking out is fir logs running from three to six feet or more in diameter While the Barker Company originally installed trucks because of the difficulty of getting steel rails, it is now their belief that the truck is as cheap as the railroad as far as operating costs are concerned, and the initial cost of the railroad would have been much greater.

Ship by Truck for Mill and Yards

At the sawmills of the Northwest, trucks ranging from 1 ton to 3½ tons are being extensively used. In the yards the small truck has shown that it can do the work of several horses. Data on deliveries, based on a number of instances, shows that a truck has the capacity of not less than two teams and saves the wages of one man.

A Michigan lumber company has kept close records of trucking costs. A 3½-ton truck is used with a 6-ton semi-trailer. In moving logs from the rural district to the plant-121/2 miles-56,484 feet were handled in 22 days, or an average of over 2,500 a day.

The average total cost was \$11.91 a day, or it cost \$4.25 to move each 1,000 feet a distance of 12½ miles. By any other power it would have cost \$12 per 1,000 feet.

An Oklahoma retail concern reports that with three 2-ton trucks and one smaller size, they handle a business that would require twenty teams.

Taking into consideration the invest-ment of trucks and the investment of teams and wagons, they state that they have cut their drayage costs more than

Firestone Ship by Truck Bureaus are now in operation in the following cities:

Akron, Ohio
Albany, N. Y.
Atlanta, Ga.
Battimore, Md.
Birmingham, Ala.
Boston, Mass.
Brooklyn, N. Y.
Buffalo, N. Y.
Charlotte, N. C.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Columbus, Ohio
Dallas, Tex.
Davenport, Ia.
Des Moines, Ia. Davenport, Ia.
Des Moines, Ia.
Detroit, Mich.
El Paso, Tex.
Erie, Pa.
Fargo, N. D.
Grand Rapids, Mich.
Great Falls, Mont.
Harrisburg, Pa.
Hartford, Conn.
Houston, Tex.
Indianapolis, Ind.
Jacksonville, Fla.
Kansas City, Mo
Los Angeles, Cal.
Louisville, Ky.
Memphis, Tenn. Milwaukee, Wis.
Minneapolis, Minn.
Minot, N. D.
Nashville, Tenn.
Newark, N. J.
New Orleans, La.
New York, N. Y.
Oakland, Cal.
Oklahoma City, Okla.
Omaha, Neb.
Philadelphia, Pa.
Phoenix, Ariz.
Pittsburgh, Pa.
Portland, Ore.
Providence, R. I.
Richmond, Va.
Rochester, N. Y.
Sacramento, Cal.
St. Louis, Mo.
Salt Lake City, Utah
San Antonio, Tex.
San Francisco, Cal.
Scranton, Pa.
Seattle, Wash.
Sporkane, Wash.
Springfield, Mass.
Syracuse, N. Y.
Toledo, Ohio
Washington, D. C.
Wichita, Kan.
Youngstown, Ohio

Call up your Local Bureau for Names of Lines, Rates, Schedules and Other Information Regarding Truck Shipment.

The Importance of the Trailer

The value of the trailer as an adjunct to the truck in lumbering should be clearly understood. At little additional expense a trailer or semi-trailer, by greatly increasing the capacity of a load, will cut down expense considerably.

Where timber to be hauled is of great length the trailer is a necessity. A Pennsylvania company uses a 5-ton truck and a 2-wheel trailer for mine props which run from 30 to 55 feet in length. These loads average between eight and twelve tons and are brought over mountains with grades as high as 7 per cent.

Ship by Truck responds to the demands of an era of reconstruction. It links new productive areas of timber, which the railroads have not reached, to the markets of trade.

It offers unprecedented opportunities to the lumberman to put his haulage on an efficient basis, to speed up produc-tion and to expand his business.

Ship by Truck.





We have moved

To enable us to catch up with orders and insure prompt deliveries in the future, we have moved our general offices and factory from Knightstown to Columbus, Ind. The splendidly equipped factory buildings illustrated below give us six times the floor space and facilities for an immediate increase in production.

The new Columbus plant is particularly fitted to our manufacturing needs. It is equipped with foundry, blacksmith shop, wood-working department, paint shop, machine shop and a large warehouse with ample receiving and shipping facilities.

We "Continental" Line

Motor Stands
Axle Stands
Radiator Stands
Welding Tables
Assembly Tables
Creepers
Industrial Trucks
Jacks and Hoists
Wrecking Trucks
Bushing Presses
Crankshaft Straightening
Presses

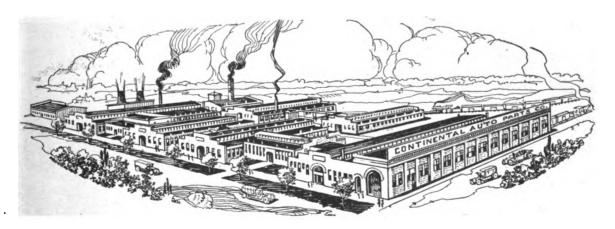
With this Increased Capacity Prompt Deliveries are Assured

If you are planning to remodel your garage, repair shop or factory you can count on reasonably prompt delivery of Continental Shop equipment.

Continental is the recognized "Shop Efficiency Standard". Selected by Uncle Sam for aviation and motor transport service. The boys in the service know there's none better. Each item is bu lt for the job by men with practical experience in repair shop problems.

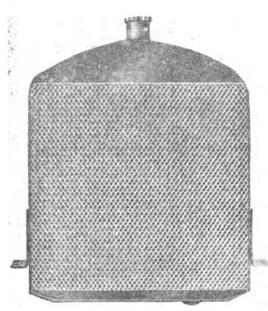
Consult the list at your left. Request further particulars, if you wish, on any item of equipment you need, or place your order direct with your nearest jobber.

CONTINENTAL AUTO PARTS COMPANY, Columbus, Ind., U.S.A.



Continental Shop Equipment

Retail Price
Radiator Without Shell \$19.50
Radiator Complete \$21.00



Put a Standard Radiator On Your Ford

Standard Radiator dealers are making big sales and big profits on Standard Radiators every day by showing that this radiator performs real service at a low price.

Made as good as a radiator can be made of standard radiator brass, hand soldered and finished. Expert workmen and a model plant combine to keep prices reasonable.

This high grade honeycomb 2½" brass core radiator is interchangeable with the regular Ford and fits the Ford Shell. Each radiator tested to 10 pounds air pressure.

A shipment will be sent C. O. D. with 5 day return privilege.

There is a nice dealer's discount. Write for it today.

Radiator cores or complete, for all cars. Write your needs.

Sold direct if dealer does not handle.

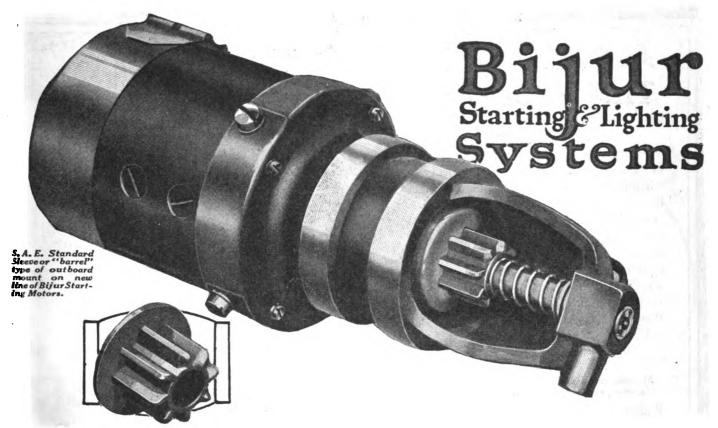
STANDARD RADIATOR CO.
SPRINGVILLE NEW YOR



September 24, 1919

STANDARD RADIATORS





An 8 Tooth Starting Pinion. A New Development in the Automobile Field.

The new line of Bijur starters incorporates an innovation in the automobile field.

The eight tooth pinion, having demonstrated its value and reliability on seaplanes and dirigibles, is now available in standard equipments for modern automobile engines.

This development, made possible by the unique design of the Bijur direct screw shift, means an increase of approximately 28% in the starting effect, the motor remaining the same size as heretofore.

Standard forms of pinion teeth are used to accommodate standard fly wheels. The S.A.E. standard "barrel" type of outboard mount has also been incorporated in the new design.

While the new design is particularly applicable to the modern light six engine, it may be adapted for use on the entire line.

This line of starters includes the well known non-jamming, back fire and fly-wheel-breaking prevention features found only in the Bijur direct automatic shift design.



At the End of the Month You Realize the True Value of the Burgess "Triple Duty"

The driver of a Burgess equipped Ford car has a mighty pleasant surprise each month when his bills come in. He finds that since installing the Burgess "Triple Duty" Rebound Check and Shock Absorbers, his tire, gas and repair bills have dropped at least 20%. Furthermore he can look back on a month of real riding comfort no matter what roads he has travelled. There's a reason for this and that reason is—the Burgess accomplishes what others claim.

Write today for further particulars.

Manufactured and guaranteed by

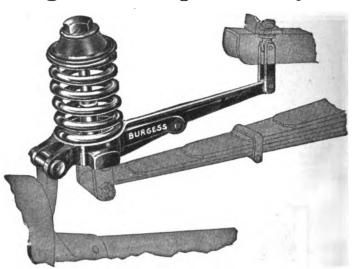
Walter S. Burgess Mfg. Co.

St. Joseph, Mich.

The Zinke Co.

Sales Dept.

1327 Michigan Av.
Chicago, Ill.



BURGESS

"TRIPLE DUTY"
REBOUND CHECK AND SHOCK ABSORBER

Two Big Values—Two Needed Car Accessories

Quick Sales. Increased Business for Jobbers and Dealers

ZIP Non-Corrosive Spark Plug

A high quality, well made spark plug. Built to last. The Metal Shell is of a copper alloy that will not corrode. The soft metal will not strip the cylinder threads or "freeze" fast in the cylinder. A size for every car. Price \$1.

Dealers and Jobbers—write for attractive proposition.

A Safety Connection That Every Motorist Wants

The Buzzing Wind Jammer

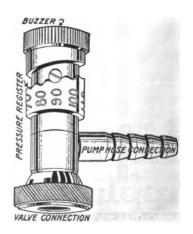
Its buzz tells him when to stop pumping. Set it at the desired pressure—the release valve opens when the tire is sufficiently inflated and you know your tire has the right pressure without bothering with tire gage. Fits any pump. Guaranteed accurate. Every one tested. Price, \$2.00. Big sales, big profits. Write for proposition today.

The Hartley Screw Co.

132 Central Ave., Newark, N. J.

P. O. Box 405

Dept. O

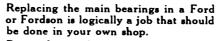






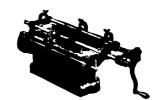
Ford and Fordson Dealers

Your Work



Doing this work in your own shop increases your business—adds to your profit—saves customers delays—keeps them satisfied.

Universal Main Bearing Replacement Equipment is easy to operate and makes perfectly aligned true bearings. See current issue Auto Trade Directory and Chilton Directory for list of jobbers carrying stocks.



Your Profit

Boring Bar. U. S. and Foreign Patents Pending

Babbiting Jig. U.S. and Forcign Patents Pending

իժումում են հերկակարկինը համումում հետատանակնում թա

UTCO PRODUCTS

Manufacturers of Universal Cylinder Reboring Tools and Main Bearing Replacement Equipment for Fords and Fordsons

The Universal Tool Company, Inc. 435 Woodward Avenue

Pays for Itself! OWIE TESTING EQUIPMENT

For Testing and Repairing All Makes of Automotive Electric Equipment

This equipment will greatly shorten the time on every electrical repair job in your shop. This is not merely a claim-it's a fact, proved by actual experience. That's why it pays for itself in a reasonable time.

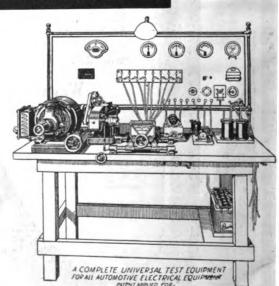
Assures absolute accuracy in testing, under actual working cenditions, starting motors, armatures, magnetos, coils, generators, distributors or any parts and units of electrical equipment.

Our new illustrated catalog is now ready for distribution. Write for your copy.

E. S. COWIE ELECTRIC COMPANY

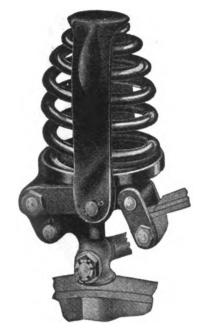
Kansas City, Mo.

Wichita, Kan.



HALLADAY

Direct Suspension Shock Absorber



Gets More Miles Out of Your Ford Car at Less Cost

The Halladay equipped car floats over bumpy, pitted roads, entirely free from those chief enemies of long life—jolts and jars. For the Halladay has the capacity to take up all the bumps and vibrations of rough going. This means lower repair, gas and tire bills and it gives

I his means lower repair, gas and tire bills and it gives you perfect riding comfort everywhere.

A boon to car owner and dealer.

Price per set\$15.00

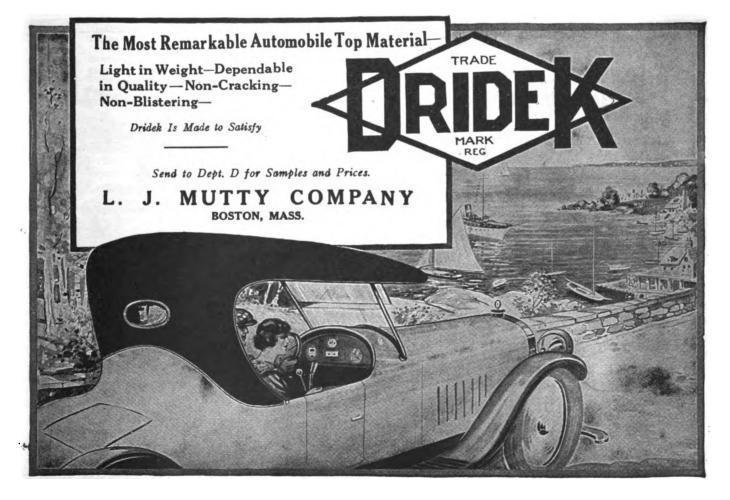
Write for full particulars

L. P. HALLADAY COMPANY

Manufacturers of Bumpers, Shock Absorbers and Automobile Accessories

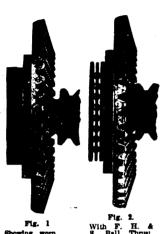
540-550 Monroe St.

Streator, Illinois



Replace the Old Style Washers With F. H. & S. Ball Thrust Bearings and Do Away With Rear Axle Repairs

Install F. H. & S. Ball Thrust Bearings in your Ford or Chevrolet 490 car and you will eliminate the worry and expense incurred by washers and friction plates. They keep your gears in correct alignment all of the time. Cause perfect lubrication. After installation no further attention is required.

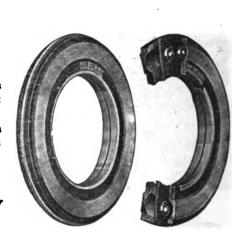


Notice how the thrust (or load) is taken directly upon 20 Micro Chrome Steel Balls. These balls rotate upon or between the High Carbon Chrome Steel ball races—hardened and ground to accurate size.

The F. H. & S. Ball Thrust Bearing is the only one that is self-contained—built as a unit.

A postcard will bring all the details about this compact unit that eliminates 90% of rear axle trouble. Write us today.

F. H. & S. Company 626 SO. MICHIGAN AVE. CHICAGO, ILL.



Link "V" on Nash Motor

Here's a G & K Link "V" Fan Belt on a Nash Motor. The Nash Motors Company adopted it 2 years ago as regular equipment and as proof of satisfactory service, they are still equipping their cars with this belt.

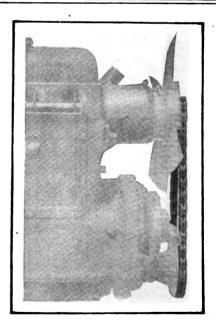
The Link "V" Belt is a combination of leather, fibre and steel links, so constructed that the steel and fibre links carry the strain. The leather links only come in contact with the pulley to give the required friction surface. It's long-lived.

There's a Link "V" Fan Belt for each make of car.

Dealers: Write us for our sales proposition.

The Graton & Knight Mfg. Co.

Automotive Equipment Division
Worcester, Mass.





SCHWARTZ TRUCKS

A Rare Combination of Recognized Units

Take the Schwartz Truck unit for unit and you will find each unit has stood the acid test of years and is recognized as the leader in its own particular field.

The Schwartz Truck is the triumph of American Engineering in the truck field. It is built for rough, hard usage; and because every unit is as near perfection as possible, this truck will prove a money saver to its owner.

Specifications:

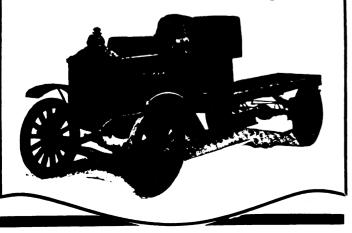
Motor: Continental Red Seal
Magneto: Bosch
Carburetor: Stromberg
Steering Gear: Ross
Frame: Parish & Bingham
Universal Joint: Hartford
Radiator: Fedders
Transmission: Brown-Lipe
Clutch: Brown-Lipe
Bearings: Timken
Springs: Perfection
Governor: Pierce
Wheels: Schwarts Artillery
Rear Axle: Torbenson Internal Drive

Dealers.

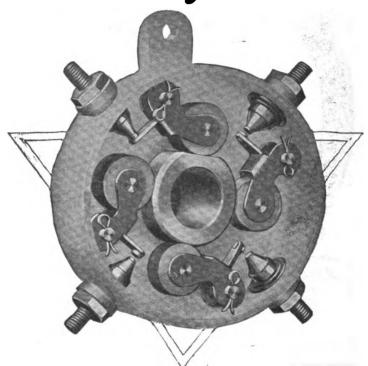
Schwartz Dealers are sure of resales because the Schwartz Truck exceeds its claims for economical and efficient service. Write us now for further information and selling plans.

Made in 11/2 ton, 21/2 ton and 4 ton capacities.

Schwartz Motor Truck Company
Pearl & Chestnut Reading, Pa.



Twice the Life Ordinary Timer



DUNTLEY MAGNETO BREAK TIMER

That's what you get from the Duntley Magneto Break Timer—50,000 miles of perfect ignition, with every timer trouble eliminated.

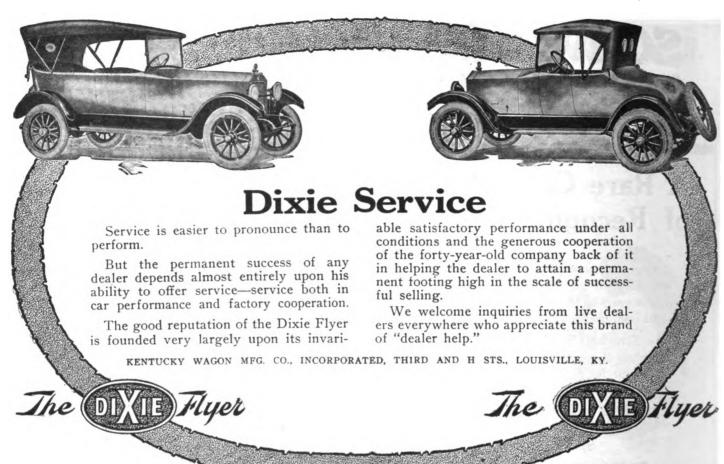
The Duntley is the most economical and nearest perfect timer ever made for Ford Car or Fordson Tractor. Here is what one man says—"The timer you sent . . . is all you claim for it. It certainly gives the Tractor twice the power it had before and also is a saver of fuel."

The Duntley requires no lubrication. There are no sliding contacts. The positive make and break contact overcomes starting troubles, and insures correct timing on all four cylinders. Interchangeable on regular Ford Fittings.

SOLD ON AN ABSOLUTE MONEY-BACK GUARANTEE

Dealers: We have a mighty interesting proposition for you. Write for it.

J. W. DUNTLEY
1005 Michigan Ave. CHICAGO, U. S. A.



International

LAIMS, built up neatly out of goodsounding words and phrases, are to be found setting forth the merits of everything that runs by motor on wheels and calls itself "motor truck." Claims alone will not sell you a truck contract any more than they will sell trucks to your prospects.

Your business sense, when you come to the contract-clinching point as a preliminary to successful motor truck selling, will make certain of something definite and substantial as a background—something like the near-90-year permanence of International Harvester reputation.

That reputation background is the dominant item in International Motor Truck success. Analyzed—it is made up of many factors and details, each important and each essential. That reputation has grown out of nearly four generations of satisfaction, and for this Company to permit it to lag by the wayside would be in the last degree unwise. It has been bought by long, hard, earnest years of effort; it is being



jealously guarded by careful management and workmanship today.

The era of motor transportation is young. Hundreds of the best and biggest dealers of the year 1925 have not yet begun. International Motor Trucks are among the few leaders now in total sales. The future for International truck and dealer is one of certain success. Write the address below for all the facts in regard to this line of motor trucks—the completeness of International service—the details as to dealer terms, territory, etc.

INTERNATIONAL HARVESTER COMPANY
OF AMERICA INC.

CHICAGO OF AMERICA INC.

It's Easier to sell Eveready Mazda

UST say "Eveready" to a motorist and you've clinched a sale. He's seen Eveready products advertised everywhere—he's used them, too, and knows how good they are.

And "Mazda" quality is world-known, of course.

So-when you say, "It's an EVEREADY MAZDA," to the customer who wants a bulb for his car, you've said the utmost about ita thirty minute convincing sales talk in thirty seconds.

That's why these lamps stream across the counters of Eveready Mazda dealers.

Then, too, the Eveready Mazda Auto Lamp



Cabinet—the new all-steel fixture—pushes the sales over even faster.

If motorists come into your shop—no matter what for-you've a real chance to corral a lot of extra sales with a stock of Eveready Mazda Auto Lamps.

Let us tell you all about it—how other dealers are sales-building with this line. Write today for our proposition.



AMERICAN EVER READY WORKS

of National Carbon Company, Inc.

304 Thompson Avenue

Long Island City, New York

Also makers of

Eveready Electric Meters, Eveready Dry Cells, Eveready Tungsten Batteries, Eveready Storage Batteries, Eveready Daylo, the light that says: "There it is!"



G-8 (1/2 size)

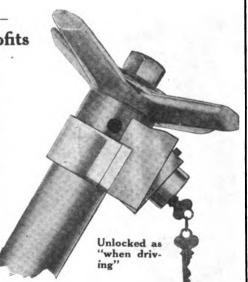
SHANKLIN'S AUTO LOCK



SHANKLIN'S Auto Lock locks the steering wheel rigidly on the steering post. Since the steering wheel cannot be turned. the car cannot be driven or towed away. It is impossible to drive the car, since it cannot be guided when the steering wheel is locked.

SHANKLIN'S Auto Lock is made of brass die castings, nicely nickel plated, instead of ordinary white castings.

This lock can be installed in 15 minutes without removing the steering wheel.



Jobbers, Sales Agencies and Dealers-write for full particulars of this interesting proposition. selling opportunity is unlimited and every car owner is a positive prospect and a probable sale. The SHANKLIN Auto Lock is guaranteed and if it fails to live up to all the claims made for it, the full purchase price will be refunded. Illustrated literature and selling plan on request.

SHANKLIN MFG. CO.

Springfield, Ill.





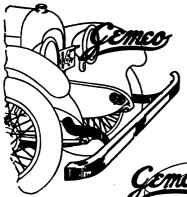
-and after they get that bump they realize that they need bumpers on both front and rear of their cars.

Scores of motorists are equipping their cars with bumpers every day. Are you ready to sell them the kind of bumpers they want? Experienced motorists know that spring bumpers are the only real protection from collision damage. Sell your customers



Collision - Proof BUMPERS

-the bumpers with the curved steel springs that take all the force of the collision. The bumper protects the car—the springs protect the bumper.



Gemco **SPRING** BUMPER

The most efficient bumper ever designed. A full spring type, fitting front and rear of all standard



The neatness of the Channel Bar com-bined with the effi-ciency of the Curved Spring Brackets. Fits standard cars front



Gemco Fender Pan Bumper

For those who prefer enclosed spring brackets and a choice of diamond or channel bars. Readily attaches to front and rear of standard cars without interfering with splash pans or fenders.

Ask your jobber today for Gemco Bumpers, or write direct to us. You will find these new spring types the best sellers you have ever handled.

GEMCO MFG. COMPANY

756 So. Pierce St..

Milwaukee, Wis.

11111111111111111 **2**

REE—this roll display rack

Write today for the details of this proposition.



If you are not fully covered on your brake lining needs for the balance of the year—if you are not positive that you can get deliveries promptly—we urge that you write us at once for samples, prices and full information.

The Modern Factory STAYBESTOS MFG. CO. The Modern Factory
5536 Lena St., Phila., Pa.

Equipped to manufacture all widths up to six inches. Makers of Universal Transmission Lining in Rolls or Sets for Fords

DOVER Electric Light Bulb Cases



Pat. Nov. 23, 1915

Carries 5 extra Lamps in a small seamless Steel Box, securely held in place by steel springs.



Pat. May 22, 1917

Carries 2 extra Lamps in a small steel cylindrical tube. Bulbs carried in either style of above cases guaranteed against breakage.

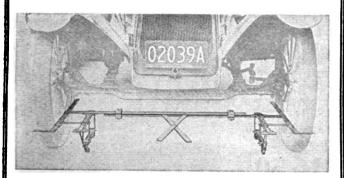
Send for Catalog.

DOVER STAMPING & MFG. CO. 385 Putnam Ave., Cor. Pleasant St., CAMBRIDGE, MASS., U.S.A.



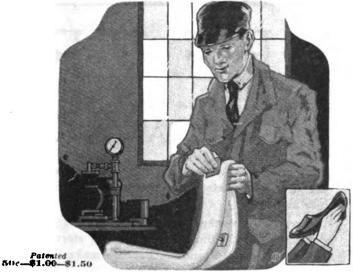
DUBY'S WHEEL GAGE

A positive instrument which tells instantly if wheels are out of line. Can be used on either front or rear wheels and adjusts itself instantly to any car, regardless of the size of wheels or tires. The pointers register on the dials in plain view of the operator.



With this device ten cars can be tested by one man in less time than two men could test one car by the old method. Price \$15.

> J. F. DUBY 1357 Blue Hill Avenue Mattapan, Mass.



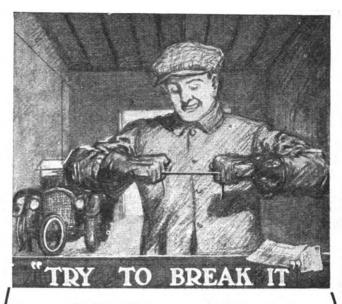


EAT vulcanizing banished! Wood's Everloc, the original, self-vulcanizing Tire Patch, is used instead. It is guaranteed to permanently repair punctures or blowouts to 17 inches in length. Just apply patch to injury. It's air tight for good. Takes 3 minutes. No heat, tools, experience required. 50c, \$1.00, \$1.50.

W. C. WOOD COMPANY

74 Western Avenue, Dept. C, Minneapolis Minneaota SPECIAL GARAGE SIZE: 20" x 28"

WOOD'S EVERLOC TIRE PATCH



Mailing Slips That Sell Tires

One of the most "pulling" sales makers we are sending out to boost

MCCREARY "Built for Longer Service" TIRES

is a little folder containing a small cotton cord with the ends sticking out to arouse curiosity.

Upon opening the folder the autoist is told to "Try to break the cord." He is surprised at the unusual strength and quality of the Sea Island fabric—the longest fiber cotton grown in the world—used in making McCreary Tires.

The point is made plain that it is not possible to buy better cotton cord or better rubber than is used in building these strictly hand-made tires which are guaranteed to give 5,000 miles of satisfactory service.

A place for your name is reserved on these folders. We have an Exclusive Territory proposition that is well worth writing for. Delay may mean "closed territory."

McCreary Tire & Rubber Co.

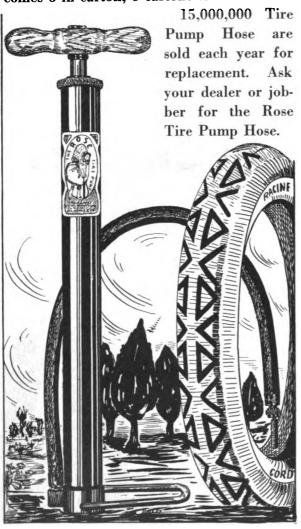
Indiana, Penna.



ROSE TIRE PUMP HOSE

is the best hose that money will buy. 17-32 inch outside, 3-16 inch inside, 5 ply fabric having an inner wall of pure para rubber. The hose is 24 inches long and comes complete with clamps and connections for replacement.

ROSE TIRE PUMP HOSE FITS NEARLY ALL THE PUMPS MADE and comes 6 in carton, 6 cartons to case.



Pump hose only, complete with connection and hose band

List..... 75c

Manufactured and Guaranteed By

J. H. HANEY & CO.

HASTINGS, NEBRASKA

Introducing SHUTTER

RADIATOR COVER

A tremendous advance over old style radiator covers. Works from the dash, or front. Easily installed, nothing to get out of order.

Protects the radiator from freezing; your motor starts quicker, saving your battery, gas and oil. Indispensable for winter motoring.

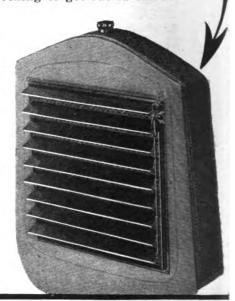
\$16.50

Ask your dealer or

The Allen Auto Specialty Co.

Makers of the Famous Allen Tire Case 16 West 61st Street New York

2007 Michigan Ave. Chicago Circular on request



SPEER

The Brush With

A REPUTATION

A brush, properly applied, for every starting and lighting system known to the automobile industry.

Every car owner realizes the service rendered by the lighting generator and starting motor. Speer Automobile Brushes make that service reliable.

Every jobber, dealer, garage and repair shop should investigate the quality of Speer Automobile Brushes. Car owners will accept no substitutes.

Write for Latest Catalogs.

Speer Carbon Company St. Marys, Pa.

HUBBELL No. 6700 **CURRENT TAP**



Provides two outlets-for Light and Power

Fits any standard Socket. Takes any one-piece, screw base Plug or standard plug Cap. Permits use of Reflector.

HARVEY HUBBELL, Inc.

BRIDGEPORT



CONNECTICUT



time you pay them for. You measure or count raw material - so you should check labor-and check it with a machine that records ELAPSED TIME with absolute accuracy-like the Calculagraph.

You can also use the Calculagraph for job timekeeping, giving you records on which to base your repair costs.

Write for free booklet No. 11, giving complete details of a simple cost system for garages and repair shops that you can use-write today-now.

You should demand a receipt from your workmen for every minute of the

LAPSED time is what you buy from your mechanics.

THE CALCULAGRAPH COMPANY 30 CHURCH ST. NEW YORK



Repair Any Auto Truck Examine These FRE NEW AUTO BOOKS FRE

Be an expert auto repair man. You can have the skill that makes every complicated trouble as easy to fix as taking out a spark plug. Learn every detail of all makes of cars and trucks. Know exactly how to find what's wrong and how to make all repairs quick-ly. These great new Auto Books show you how.

MAKE MONEY REPAIRING AUTOS

The limited output of new cars does not anywhere near meet the demand. Rebuilt cars are selling at a premium. Never before have expert auto repair men been in such great demand and made so much money. Now is your great moneyearning opportunity in the auto repair business. Every mechanic, every chauffeur, every car owner needs this great New Library of Automobile Engineer-

50ca Week If You Decide to Buy

Explosion Motors, Welding, Motor Construction and Construction and Repair, Carburetors and Settings, Valves, Cooling, Lubrication, Fly-Wheels, Clutch, Transmission, Final Drive, Steering Frames, Tires, Vulcanizing Ignition, Starting and Lighting Systems, Shop Kinks, Public Garage Design, Shop Kinks, Public Garage Design, Equipment and Op-eration, Electrics, Storage Batteries, Care and Repair, Steam Cars, Motor-cycles, Commercial Trucks, Glossary, More than 100 blue prints of wiring diagrams.

Let us send you the complete six vol-Tells About bile Engineering for one week's examina-tion. Read the simple directions for repairing every automobile trouble. Six thick volumes, 5½ x 8¾ inches, flexibly bound in American received. in American morocco, 2,650 pages, 2,100 illustrations, wiring diagrams, etc. Everything in plain, every-day language, simple to understand. If you decide to keep them, send only \$2 in seven send only \$2 in seven days, and \$2 a month thereafter until the special introductory price of \$19.80 has been paid. The regu-lar price is \$30, so you save \$10.20 by acting at once.

Send No Money

Don't send a penny! Your name and address in the coupon brings the six books to you at once for seven days' trial. With each set we give you absolutely free a \$12 Consulting Membership, entitling you to ask our staff of automobile experts as many questions as you wish, a whole year free; Mail Coupon NOW.

American Technical Society Chicago, U. S. A.



AMERICAN TECHNICAL SOCIETY Dept. A-436-A Chicago, U. S.A Dept. A-436-A Chicago, U. S.A.

Please send me the six volume
set of Automobile Engineering
for seven days' examination, shippling charges collect. If I decide to buy I will send \$2.00
within seven days and balance at
\$2.00 a month until \$19.80 has been paid.
Then you will send me a receipt, showing that the set of books and the Conulting Membership are mine and fully paid
for. If I think I can get along without
the books, I will return them, after seven
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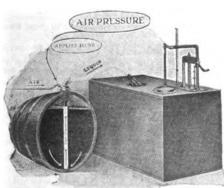
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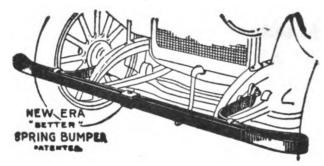
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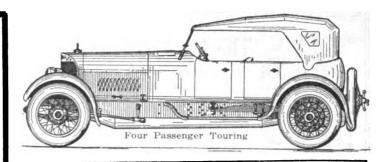
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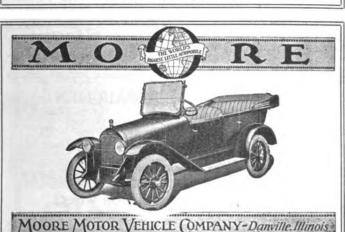
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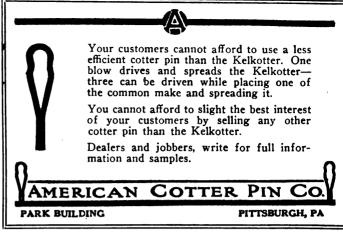
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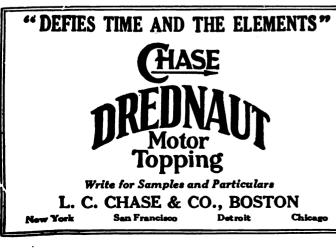












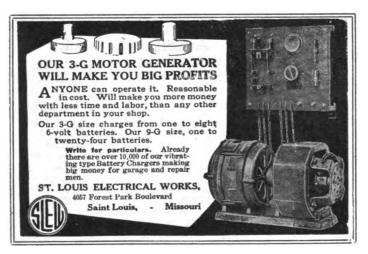


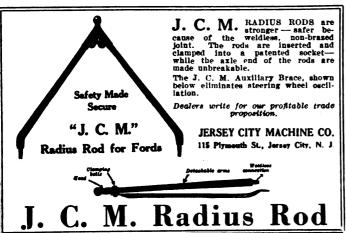
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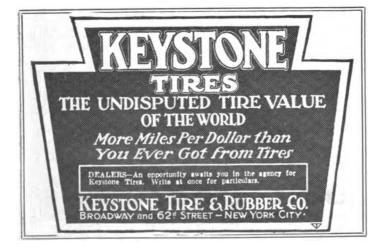
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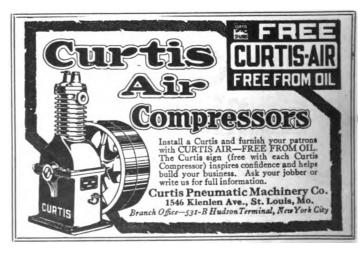


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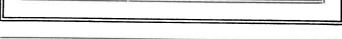
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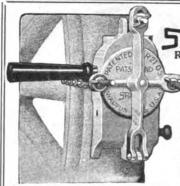
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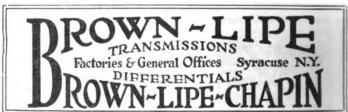




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This Dial Board, size 9" x 12", made of real wood veneer with a one-inch mahogany finish frame, is given to any Car Distributor, Dealer or Garageman who orders ten or more assorted Boyce Moto Meters, one delivery. We also send two additional Big Sales Helps, the Counter Display Stand and our new Service Sign.

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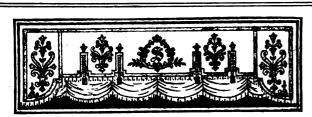


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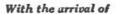
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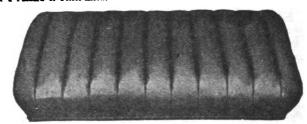
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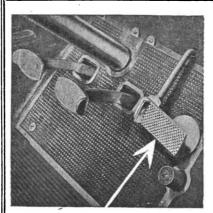
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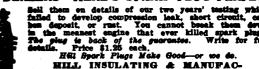


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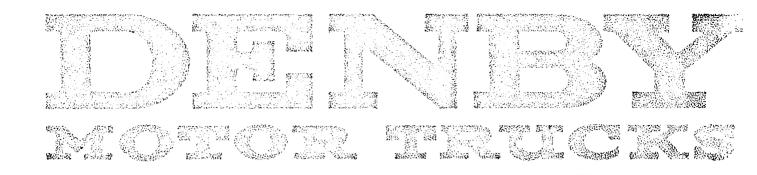
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